

TRAFFIC IMPACT ANALYSIS

For

QUARRY CREEK MASTER PLAN

Prepared for

THE CITY OF CARLSBAD

and

QUARRY CREEK INVESTORS, LLC

Final Report: October 5, 2012

**TRANSPORTATION ANALYSIS
TABLE OF CONTENTS**

<u>Section</u>	<u>Page</u>
ES EXECUTIVE SUMMARY	ES-1
1.0 INTRODUCTION	1-1
2.0 ANALYSIS METHODOLOGY	2-1
3.0 EXISTING CONDITIONS	3-1
4.0 PROJECT DESCRIPTION	4-1
5.0 EXISTING PLUS PROJECT CONDITIONS	5-1
6.0 NEAR TERM WITHOUT PROJECT	6-1
7.0 NEAR TERM PLUS PROJECT	7-1
8.0 BUILDOUT ALTERNATIVE 1	8-1
9.0 BUILDOUT ALTERNATIVE 2	9-1
10.0 PROJECT CIRCULATION ROADWAYS	12-1
11.0 PEDESTRIAN / TRANSIT MASTER PLAN GUIDELINES	13-1
12.0 CONCLUSIONS AND RECOMMENDATIONS	14-1
13.0 REFERENCES	15-1
14.0 URBAN SYSTEMS ASSOCIATES, INC. PREPARERS	16-1

LIST OF FIGURES

<u>Number</u>	<u>Page</u>
1-1 Project Location Map.....	1-2
3-1 Existing Roadway Classifications.....	3-2
3-2 Existing Average Daily Traffic Volumes	3-6
3-3 Study Area Intersection Key.....	3-10
3-4 Existing Lane Configurations (3 pages)	3-11
3-5 Existing AM / PM Peak Hour Volumes (3 pages).....	3-14
4-1 Quarry Creek Master Plan Site Plan	4-3
5-1 Project Trip Distribution Percentages –No RDO Interchange / No RDO Extension / No Marron Road	5-2
5-2 Project Only Average Daily Traffic Volumes – For Existing Conditions No RDO Interchange / No RDO Extension / No Marron Road.....	5-3
5-3 Project Only AM / PM Peak Hour Volumes – Alternative 4 No RDO Interchange / No RDO Extension / No Marron Road (3 pages)	5-4
5-4 Existing + Project Average Daily Traffic Volumes.....	5-7
5-5 Existing + Project AM / PM Peak Hour Volumes (3 pages)	5-8
6-1 Other Approved Projects Locations.....	6-3
6-2 Other Approved Project Average Daily Traffic Volumes	6-4
6-3 Near Term Without Project Average Daily Traffic	6-5
6-4 Other Projects Only AM / PM Peak Hour Volumes (3 pages)	6-7
6-5 Existing + Other Projects AM / PM Peak Hour Volumes (3 pages)	6-12
6-6 Near Term Lane Configurations (3 Pages).....	6-15
7-1 Near Term Plus Project Average Daily Traffic Volumes.....	7-2

LIST OF FIGURES (Continued)

<u>Number</u>	<u>Page</u>
7-1-A Near Term Plus Project Deficient Segment Peak hour Analysis.....	7-10
7-2 Near Term Plus Project AM / PM Peak Hour Traffic (3 Pages)	7-3
7-3 Near Term Lane Plus Project Configurations (3 Pages).....	7-6
8-1 Project Trip Distribution Percentages – Alternative 1 Circulation Element Roadways (All In)..	8-2
8-2 Buildout ADT Volumes – Alternative 1 Project Only.....	8-3
8-3 Buildout ADT Volumes – Alternative 1 Without Project	8-4
8-4 Buildout ADT Volumes – Alternative 1 With Project	8-5
8-5 Project Only AM / PM Peak Hour Volumes – Alternative 1 With RDO Interchange / With RDO Extension / With Marron Road (3 pages)	8-13
8-6 Buildout Without Project AM / PM Peak Hour Volumes – Alternative 1 (3 pages).....	8-16
8-7 Buildout With Project AM / PM Peak Hour Volumes – Alternative 1 (3 pages).....	8-19
8-8 Buildout Alternative – 1 Lane Configurations (3 Pages).....	8-22
9-1 Project Trip Distribution Percentages – Alternative 2 With RDO Interchange / No RDO Extension / No Marron Road	9-2
9-2 Buildout ADT Volumes – Alternative 2 Project Only.....	9-3
9-3 Buildout ADT Volumes – Alternative 2 Without Project	9-4
9-4 Buildout ADT Volumes – Alternative 2 With Project	9-5
9-5 Project Only AM / PM Peak Hour Volumes – Alternative 2 With RDO Interchange / No RDO Extension / NO Marron Road (3 pages)	9-13
9-6 Buildout Without Project AM / PM Peak Hour Volumes – Alternative 2 (3 pages).....	9-16
9-7 Buildout With Project AM / PM Peak Hour Volumes – Alternative 2 (3 pages).....	9-19
9-8 Buildout Alternative – 2 Lane Configurations (3 Pages).....	9-22

LIST OF FIGURES (Continued)

<u>Number</u>	<u>Page</u>
10-1 Project Only AM / PM Peak Hour Volumes – Alternative 1	10-2
10-2 Project Only AM / PM Peak Hour Volumes – Alternative	10-3
11-1 Pedestrian, Bike and Trail Circulation Plan.....	11-2
11-2 Vehicular Circulation Plan.....	11-3

LIST OF TABLES

<u>Number</u>	<u>Page</u>
ES-1 Mitigation Summary (6 Pages)	ES-10
ES-2 Alternative Land Alternative 2 Intersection Delay Comparison	ES-17
2-1 Circulation Element Roadway Classification LOS & Capacity	2-2
2-2 HCM Level of Service Description for Signalized Intersections	2-4
2-3 SR-78 Freeway Segment Level of Service Definitions	2-6
3-1 Existing Street Segment Levels of Service Within Oceanside	3-7
3-2 Existing Street Segment Levels of Service Within Carlsbad.....	3-8
3-3 Existing Intersection Levels of Service	3-17
3-4 Existing Freeway Segment Levels of Service	3-19
4-1 Project Trip Generation.....	4-4
5-1 Project Plus Existing Street Segment Levels of Service Within Oceanside.....	5-11
5-2 Project Plus Existing Street Segment Levels of Service Within Carlsbad	5-14
5-3 Project Plus Existing Intersection Levels of Service	5-16
5-4 Project Plus Existing Freeway Segment Levels of Service	5-18
6-1 Near Term Without Project Street Segment Levels of Service Within Oceanside.....	6-6
6-2 Near Term Without Project Street Segment Levels of Service Within Carlsbad	6-10
6-3 Near Term Without Project Intersection Levels of Service.....	6-19
6-3-A Near Term Without Project Intersection Levels of Service (With Planned but Unfunded Improvements)	6-20
6-4 Near Term Without Project Freeway Segment Levels of Service.....	6-21
7-1 Near Term Plus Project Street Segment Levels of Service Within Oceanside.....	7-9
7-1-A Near Term Plus Project Deficient Segment Peak Hour Analysis	7-10

LIST OF TABLES (Continued)

<u>Number</u>	<u>Page</u>
7-2	Near Term Plus Project Street Segment Levels of Service Within Carlsbad 7-14
7-3	Near Term Plus Project Intersection Levels of Service 7-16
7-3-A	Near Term Plus Project Intersection Levels of Service (With Planned but Unfunded Improvements) 7-17
7-4	Near Term Plus Project Freeway Segment Levels of Service 7-19
8-1	Buildout Alternative 1 Street Segment Levels of Service Within Oceanside 8-8
8-1-A	Buildout Alternative 1 Deficient Segment Peak Hour Analysis 8-9
8-2	Buildout Alternative –1 Street Segment Levels of Service Within Carlsbad 8-11
8-3	Alternative 1 Intersection Levels of Service 8-26
8-3-A	Alternative 1 Intersection Levels of Service (With Planned but Unfunded Improvements) 8-27
8-4	Buildout Alternative 1 Freeway Segment Levels of Service 8-29
9-1	Buildout Alternative 2 Street Segment Levels of Service Within Oceanside 9-7
9-1-A	Buildout Alternative 2 Deficient Segment Peak Hour Analysis 9-8
9-2	Buildout Alternatives 2 Street Segment Levels of Service Within Carlsbad 9-11
9-3	Alternative 2 Intersection Levels of Service (Without Mitigation) 9-25
9-3-A	Alternative 2 Intersection Levels of Service (With Planned but Unfunded Improvements) 9-27
9-4	Buildout Alternative 2 Freeway Segment Levels of Service 9-29
12-1	Mitigation Summary (6 Pages) 12-18
12-2	Alternative 1 and Alternative 2 Intersection Delay Comparison 12-25

APPENDICES

- A. Existing Conditions
- B. Near-Term Without Project
- C. Near-Term With Project
- D. Buildout Alternative 1
- E. Buildout Alternative 2

ES EXECUTIVE SUMMARY

This report evaluates potential traffic impacts due to development of the 656 dwelling unit Quarry Creek Master Plan. The Quarry Creek Master Plan also includes 1.5 net acres of community facilities that might include a day-care, and a 0.9 acre park and ride lot.

The project is expected to generate 5,578 average daily vehicle trips, 469 AM peak hour trips (121 inbound; 348 outbound), and 572 PM peak hour trips (386 inbound; 186 outbound). External trips have been adjusted down slightly to account for a transit reduction for planning area R-1, R-2, and R-3, which will be within one-fourth mile of transit service. The transit reduction decreases average daily vehicle trips by 2.8% and AM / PM peak hour trips by 2.6%.

The project is located in northern Carlsbad and will have access from Marron Road, which currently extends through the Quarry Creek Shopping Center from College Boulevard and Haymar Drive in the City of Oceanside.

This traffic analysis was conducted for Existing Conditions, Project Plus Existing Conditions, Near-Term and Near-Term Plus Project Conditions, Buildout and Buildout Plus Project Conditions.

The Existing Conditions, Project Plus Existing Conditions, Near-Term and Near-Term Plus Project Conditions evaluations were conducted assuming the current existing street network without the future extensions of Marron Road to the west to connect with El Camino Real, and without the State Route (SR) 78 / Rancho Del Oro Road interchange, and the Rancho Del Oro Road extension to Marron Road.

The Buildout and Buildout Plus Project Conditions were evaluated for two street network alternatives:

Alternative 1 – This street network assumes all roadways that are included in the City of Carlsbad and City of Oceanside General Plan Circulation Plans. This street network assumes the extension of Marron Road from the existing east end at the Quarry Creek Shopping Center property line, to the existing west end approximately 1,000 feet east of El Camino Real, all within the City of Carlsbad.

Alternative 2 – This street network assumes the Rancho Del Oro Road interchange at SR-78 is constructed, but the Marron Road extension is not included, nor is the Rancho Del Oro Road extension to Marron Road.

Significance Thresholds

In order to determine if the project would have a significant traffic impact on roadway segments or intersections, both the SANTEC / ITE Guidelines and the City of Carlsbad Growth Management Plan Circulation Performance Standard were used.

1. If the addition of project traffic to a roadway segment or intersection causes the level of service to decrease from “D” to “E” or “F”, then the project is considered to have a significant impact.
2. If a facility is at level of service “E” or “F” before the addition of project traffic, then the following changes are allowed:
 - Roadway Segments – An increase in the volume to capacity (v/c) ratio based on average daily traffic volumes, of no more than 0.02 is acceptable. However, a segment peak hour analysis must be completed under project conditions to determine peak hour significance of project impacts. A decrease in segment average travel speed of greater than one mile per hour indicates a significant impact.
 - Intersections – An increase in delay of no more than 2.0 seconds is acceptable.
 - Freeways – An increase in volume to capacity (V/C) ratio of no more than 0.01 is acceptable.

Provided below are conclusions and recommendations that describe project traffic impacts and possible mitigation.

ES.1 EXISTING CONDITIONS

Street Segments Within Oceanside

Of the 18 study area street segments in Oceanside only two segments currently operate deficiently:

- Vista Way between College Boulevard and the SR-78 westbound ramps.

Mitigation: The Oceanside Circulation Element Update recommends providing a westbound dedicated right-turn lane and lengthening the westbound left-turn lanes at the College Boulevard / Vista Way intersection by restriping the existing lanes. As stated in the Update, these improvements would improve peak hour operations but would not fully mitigate segment impacts, so that overriding considerations should be adopted.

- Lake Boulevard between Thunder Drive and Sundown Lane, at LOS “E”.

Mitigation: Widen to a 4-lane Secondary Collector with two-way left turn lane. However, the Oceanside Circulation Element Update Final EIR recommends retaining this segment as two lanes and adopting Overriding Considerations, due to an agreement between the City and the residents to maintain this as a two lane road with a two-way left turn lane pocket.

Street Segments Within Carlsbad

Of the 11 roadway segments evaluated in Carlsbad, no segments evaluated operate deficiently during the AM and PM peak hours, as required by the City’s Growth Management Plan.

Intersections

Within Oceanside, 14 intersections were evaluated and none currently operate deficiently.

Within Carlsbad, five intersections were evaluated and none currently operate deficiently.

State Route 78 Mainlines

Four segments of State Route 78 were evaluated, and one currently operates at level of service “E” during peak hours.

- El Camino Real to College Boulevard (LOS “E”).

Mitigation: Regional SR-78 studies are currently being conducted by SANDAG / Caltrans, and improvements to add High Occupancy Vehicle (HOV) lanes have been included in the Year 2050 Regional Transportation Plan.

ES.2 PROJECT PLUS EXISTING CONDITIONS

The Project Plus Existing Conditions were evaluated for significant impacts due to the addition of project traffic to existing conditions volumes.

Street Segments Within Oceanside

Two segments in Oceanside would have significant direct project impacts:

- College Boulevard, between Vista Way and Plaza Drive.
(Project Responsibility – 100%)

Mitigation Recommendation: Since physical improvements to add lanes are infeasible, the Final, April 2012 City of Oceanside Circulation Element Update recommends reclassification of this segment of College Boulevard from a six-lane Major Arterial to a six-lane Prime Arterial. This reclassification would mitigate the project significant impacts. However, the Oceanside Update considers roadway reclassification infeasible, so that the Oceanside Circulation Element Update Final EIR recommends Overriding Considerations.

The changes or alterations are within the responsibility and jurisdiction of the City of Oceanside. The City of Oceanside does not appear to have adopted a program to construct such improvements and there does not appear to be a program to accept payments in lieu of construction. Due to the fact that the subject impacted segment is located outside the jurisdiction and regulatory authority of the City of Carlsbad, these impacts are considered significant and unmitigable. See CEQA Guidelines Section 15091 (a) (2).

- Vista Way, between College Boulevard and the SR-78 westbound ramps. This segment is at level of service “E” under existing conditions and with project traffic added. The project change in volume to capacity ratio is greater than 0.02, at 0.041, so this would be a significant impact. (Project Responsibility – 100%)

Mitigation Recommendation: The Oceanside Circulation Element Update recommends providing a westbound dedicated right-turn lane and lengthening the westbound left-turn lanes at the College Boulevard / Vista Way intersection by restriping the existing lanes. As stated in the Update, these improvements would improve peak hour operations but would not fully mitigate segment impacts, so that Overriding Considerations should be adopted.

The changes or alterations are within the responsibility and jurisdiction of the City of Oceanside. The City of Oceanside does not appear to have adopted a program to construct such improvements and there does not appear to be a program to accept payments in lieu of construction. Due to the fact that the subject impacted segment is located outside the jurisdiction and regulatory authority of the City of Carlsbad, these impacts are considered significant and unmitigable. See CEQA Guidelines Section 15091 (a) (2).

Street Segments in Carlsbad

Project traffic impacts would be less than significant.

Intersections

Project traffic impacts would be less than significant at intersections within Oceanside and Carlsbad.

State Route 78 Mainlines

Project traffic impacts would be less than significant to State Route 78 segments evaluated.

ES.3 NEAR-TERM PLUS PROJECT CONDITIONS

The Near-Term cumulative impacts from other approved and reasonably feasible pending projects that are expected to influence the study area at approximately the same time frame as the Quarry Creek project were evaluated without and with project traffic added.

No additional significant project impacts were identified for this condition beyond those previously discussed in prior sections of this report.

Street Segments Within Oceanside

Five street segments in Oceanside would operate deficiently at level of service “E” or “F”, and three segments would have a significant direct impact.

- El Camino Real between Vista Way and the SR-78 westbound ramp, level of service “E”, but project impacts are less than significant.

- College Boulevard between Vista Way and Plaza Drive, level of service “F”, the project impact is a significant direct impact.
(Project Responsibility – 45.8%)

Mitigation Recommendation: Since physical improvements to add lanes are infeasible, the Final, April 2012 City of Oceanside Circulation Element Update recommends reclassification of segments of College Boulevard from a six-lane Major Arterial to a six-lane Prime Arterial. This reclassification would mitigate the project significant impact. However, the Oceanside Update considers roadway reclassification infeasible, so that the Oceanside Circulation Element Update Final EIR recommends Overriding Considerations.

The changes or alterations are within the responsibility and jurisdiction of the City of Oceanside. The City of Oceanside does not appear to have adopted a program to construct such improvements and there does not appear to be a program to accept payments in lieu of construction. Due to the fact that the subject impacted segment is located outside the jurisdiction and regulatory authority of the City of Carlsbad, these impacts are considered significant and unmitigable. See CEQA Guidelines Section 15091 (a) (2).

- Vista Way between College Boulevard and the SR-78 westbound ramps, at level of service “F”, the project impact is a significant direct impact.
(Project Responsibility – 25.5%)

Mitigation Recommendation: The Oceanside Circulation Element Update recommends providing a westbound dedicated right-turn lane and lengthening the westbound left-turn lanes at the College Boulevard / Vista Way intersection by restriping the existing lanes. As stated in the Update, these improvements would improve peak hour operations but would not fully mitigate segment impacts, so that Overriding Considerations should be adopted.

The changes or alterations are within the responsibility and jurisdiction of the City of Oceanside. The City of Oceanside does not appear to have adopted a program to construct such improvements and there does not appear to be a program to accept payments in lieu of construction. Due to the fact that the subject impacted segment is located outside the jurisdiction and regulatory authority of the City of Carlsbad, these impacts are considered significant and unmitigable. See CEQA Guidelines Section 15091 (a) (2).

- Lake Boulevard between Thunder Drive and Sundown Lane, at level of service “F”, but the project impact is less than significant, so no project mitigation is required.

Street Segments Within Carlsbad

Of the 11 roadway segments evaluated in Carlsbad, no segments evaluated operate deficiently during the AM and PM peak hours, as required by the City’s Growth Management Plan.

Intersections

One intersection is Oceanside would operate deficiently, at level of service “E” during the PM peak hour, but the project impact is less than significant.

- El Camino Real / Vista Way, at level of service “E” during the PM peak hour, but the project impact is less than significant so that no project mitigation is required.

Intersections within Carlsbad would operate acceptably so project impacts would be less than significant and no project mitigation is required.

State Route 78 Mainlines

Project traffic impacts would be less than significant.

ES.4 BUILDOUT ALTERNATIVE 1

Street Segments Within Oceanside

Five segments are expected to be at level of service “F” during Buildout of Alternative 1, but only three would have a significant cumulative project impact.

- College Boulevard between Barnard Way and Vista Way, at level of service “F”, but the project impact is less than significant.
- College Boulevard between Vista Way and Plaza Drive, at level of service “F”, and the project impact is a significant cumulative impact.
(Project Responsibility – 15.5%)
- College Boulevard between Plaza Drive and Marron Road, at level of service “F” as determined by a peak hour segment analysis, and the project impact is a significant cumulative impact.
(Project Responsibility – 32.8%)
- College Boulevard between Marron Road and the south City limit, at level of service “F”, and the project impact is a significant cumulative impact.
(Project Responsibility – 6.4%)

Mitigation Recommendation: Since physical improvements to add lanes are infeasible, the Final, April 2012 City of Oceanside Circulation Element Update recommends reclassification of these segments of College Boulevard from a six-lane Major Arterial to a six-lane Prime Arterial and a four-lane Major Arterial to a six-lane Major Arterial. This reclassification would mitigate the project significant impacts. However, the Oceanside Update considers roadway reclassification and widening infeasible, so that the Oceanside Circulation Element Update Final EIR recommends Overriding Considerations.

The changes or alterations are within the responsibility and jurisdiction of the City of Oceanside. The City of Oceanside does not appear to have adopted a program to construct such improvements and there does not appear to be a program to accept payments in lieu of construction. Due to the fact that the

subject impacted segments are located outside the jurisdiction and regulatory authority of the City of Carlsbad, these impacts are considered significant and unmitigable. See CEQA Guidelines Section 15091 (a) (2).

- Vista Way between College Boulevard and the SR-78 westbound ramps, at level of service “F”, but the project impact is less than significant as indicated by the allowable increase in volume to capacity ratio and a peak hour segment analysis that shows a decrease in average travel speed of no more than one mile per hour. No project mitigation is required.

Street segments within Carlsbad are expected to operate acceptably during peak hours as required by the City’s Growth Management Plan.

Intersections

Two intersections within Oceanside are expected to be at deficient levels of service, one has less than a significant project impact and the other has a significant cumulative impact.

- El Camino Real / Vista Way, at level of service “E” during the PM peak, but the project impact is less than significant with no project mitigation required.
- College Boulevard / Marron Road – Lake Boulevard, at level of service “E” during the PM peak hour. The project will have a significant cumulative impact at this intersection, and should contribute a fair-share of the planned mitigation.
(Project Responsibility – 13.3%)

Mitigation: The Oceanside Circulation Element Update Final EIR recommends adding a second northbound right-turn only lane on College Boulevard to eastbound Lake Boulevard.

The changes or alterations are within the responsibility and jurisdiction of the City of Oceanside. The City of Oceanside does not appear to have adopted a program to construct such improvements and there does not appear to be a program to accept payments in lieu of construction. Due to the fact that the subject impacted intersection is located outside the jurisdiction and regulatory authority of the City of Carlsbad, these impacts are considered significant and unmitigable. See CEQA Guidelines Section 15091 (a) (2).

State Route 78 Mainlines

Project traffic impacts would be less than significant.

ES.5 BUILDOUT ALTERNATIVE 2

Street Segments Within Oceanside

Five segments are expected to be at level of service “F” during Buildout of Alternative 1, but only three would have a significant cumulative project impact.

- College Boulevard between Barnard Way and Vista Way, at level of service “F”, but the project impact is less than significant.
- College Boulevard between Vista Way and Plaza Drive, at level of service “F”, and the project impact is a significant cumulative impact.
(Project Responsibility – 20.1%)
- College Boulevard between Plaza Drive and Marron Road, at level of service “F” as a result of a peak hour segment analysis, and the project impact is a significant cumulative impact.
(Project Responsibility – 28.6%)
- College Boulevard between Marron Road and the south City limit, at level of service “F”, and the project impact is a significant cumulative impact.
(Project Responsibility – 7.3%)

Mitigation Recommendation: Since physical improvements to add lanes are infeasible, the Final, April 2012 City of Oceanside Circulation Element Update recommends reclassification of these segments of College Boulevard from a six-lane Major Arterial to a six-lane Prime Arterial and a four-lane Major Arterial to a six-lane Major Arterial. This reclassification would mitigate the project significant impacts. However, the Oceanside Update considers roadway reclassification and widening infeasible, so that the Oceanside Circulation Element Update Final EIR recommends Overriding Considerations.

The changes or alterations are within the responsibility and jurisdiction of the City of Oceanside. The City of Oceanside does not appear to have adopted a program to construct such improvements and there does not appear to be a program to accept payments in lieu of construction. Due to the fact that the subject impacted segments are located outside the jurisdiction and regulatory authority of the City of Carlsbad, these impacts are considered significant and unmitigable. See CEQA Guidelines Section 15091 (a) (2).

- Vista Way between College Boulevard and the SR-78 westbound ramps, at level of service “F” with or without project traffic, and the project impact is significant cumulatively as indicated by the increase in volume to capacity of more than 0.02 at 0.04.
(Project Responsibility – 30.8%)

Mitigation Recommendation: The Oceanside Circulation Element Update recommends providing a westbound dedicated right-turn lane and lengthening the westbound left-turn lanes at the College Boulevard / Vista Way intersection by restriping the existing lanes. As stated in the Update, these improvements would improve peak hour operations but would not fully mitigate segment impacts, so that Overriding Considerations should be adopted.

The changes or alterations are within the responsibility and jurisdiction of the City of Oceanside. The City of Oceanside does not appear to have adopted a program to construct such improvements and there does not appear to be a program to accept payments in lieu of construction. Due to the fact that the subject impacted segment is located outside the jurisdiction and regulatory authority of the City of

Carlsbad, these impacts are considered significant and unmitigable. See CEQA Guidelines Section 15091 (a) (2).

Intersections

Two intersections within Oceanside are expected to be at deficient levels of service, one has less than a significant project impact and the other has a significant cumulative impact.

- El Camino Real / Vista Way, at level of service “E” during the PM peak, but the project impact is less than significant with no project mitigation required.
- College Boulevard / Marron Road – Lake Boulevard, at level of service “E” during the PM peak hour. The project will have a significant cumulative impact at this intersection, and should contribute a fair-share of the planned mitigation.
(Project Responsibility – 61.2%)

Mitigation: The Oceanside Circulation Element Update Final EIR recommends adding a second northbound right-turn only lane on College Boulevard to eastbound Lake Boulevard.

The changes or alterations are within the responsibility and jurisdiction of the City of Oceanside. The City of Oceanside does not appear to have adopted a program to construct such improvements and there does not appear to be a program to accept payments in lieu of construction. Due to the fact that the subject impacted intersection is located outside the jurisdiction and regulatory authority of the City of Carlsbad, these impacts are considered significant and unmitigable. See CEQA Guidelines Section 15091 (a) (2).

Intersections within Carlsbad are expected to operate acceptably during peak hours as required by the City’s Growth Management Plan.

State Route 78 Mainlines

Project traffic impacts would be less than significant.

ES.6 MITIGATION SUMMARY

Table ES-1 lists for all alternatives evaluated segments and intersections that will have significant project impacts, and describes the recommended mitigation measures.

ES.7 CIRCULATION NETWORK ALTERNATIVES COMPARISON

Two buildout circulation network were evaluated, all using the same Quarry Creek land use plan.

Alternative 1 and 2 both included the Rancho Del Oro interchange at SR-78, while Alternative 2 deleted the extension of Marron Road through the designated Open Space area.

The preferred alternative for the Quarry Creek Investors, LLC is Alternative 2, which deletes the Marron Road extension through the Open Space area.

TABLE ES-1
MITIGATION SUMMARY

ALTERNATIVE	SIGNIFICANT IMPACT WITH PROJECT	MITIGATION
Existing Plus Project	Segments: College Blvd. (Vista Way to Plaza Dr.) Impact: Direct	<p>Since physical improvements to add lanes are infeasible, the Final, April 2012 City of Oceanside Circulation Element Update recommends reclassification of this segment of College Boulevard from a six-lane Major Arterial to a six-lane Prime Arterial. This reclassification would mitigate the project significant impacts. However, the Oceanside Update considers roadway reclassification infeasible, so that the Oceanside Circulation Element Update Final EIR recommends Overriding Considerations.</p> <p>The changes or alterations are within the responsibility and jurisdiction of the City of Oceanside. The City of Oceanside does not appear to have adopted a program to construct such improvements and there does not appear to be a program to accept payments in lieu of construction. Due to the fact that the subject impacted segment is located outside the jurisdiction and regulatory authority of the City of Carlsbad, these impacts are considered significant and unmitigable. See CEQA Guidelines Section 15091 (a) (2). Fair Share: 100%</p>
	Vista Way (College Blvd. to SR-78 WB Ramps) Impacts: Direct	<p>The Oceanside Circulation Element Update recommends providing a westbound dedicated right-turn lane and lengthening the westbound left-turn lanes at the College Boulevard / Vista Way intersection by restriping the existing lanes. As stated in the Update, these improvements would improve peak hour operations but would not fully mitigate segment impacts, so that Overriding Considerations should be adopted.</p> <p>The changes or alterations are within the responsibility and jurisdiction of the City of Oceanside. The City of Oceanside does not appear to have adopted a program to construct such improvements and there does not appear to be a program to accept payments in lieu of construction. Due to the fact that the subject impacted segment is located outside the jurisdiction and regulatory authority of the City of Carlsbad, these impacts are considered significant and unmitigable. See CEQA Guidelines Section 15091 (a) (2). Fair Share: 100%</p>
	Intersections: None	None

Note: Fair share percentages for segments are based on project % of increase in ADT above existing ADT. Fair share percentages for intersections are based on project % of increase in PM peak hour approach volumes above existing PM peak hour approach volumes.

TABLE ES-1
MITIGATION SUMMARY

ALTERNATIVE	SIGNIFICANT IMPACT WITH PROJECT	MITIGATION
Near-Term Plus Project	Segments: College Blvd. (Vista Way to Plaza Dr.) Impact: Direct	<p>Since physical improvements to add lanes are infeasible, the Final, April 2012 City of Oceanside Circulation Element Update recommends reclassification of this segment of College Boulevard from a six-lane Major Arterial to a six-lane Prime Arterial. This reclassification would mitigate the project significant impacts. However, the Oceanside Update considers roadway reclassification infeasible, so that the Oceanside Circulation Element Update Final EIR recommends Overriding Considerations.</p> <p>The changes or alterations are within the responsibility and jurisdiction of the City of Oceanside. The City of Oceanside does not appear to have adopted a program to construct such improvements and there does not appear to be a program to accept payments in lieu of construction. Due to the fact that the subject impacted segment is located outside the jurisdiction and regulatory authority of the City of Carlsbad, these impacts are considered significant and unmitigable. See CEQA Guidelines Section 15091 (a) (2). Fair Share: 45.8%</p>
	Vista Way (College Blvd. to SR-78 WB Ramps) Impacts: Direct	<p>The Oceanside Circulation Element Update recommends providing a westbound dedicated right-turn lane and lengthening the westbound left-turn lanes at the College Boulevard / Vista Way intersection by restriping the existing lanes. As stated in the Update, these improvements would improve peak hour operations but would not fully mitigate segment impacts, so that Overriding Considerations should be adopted.</p> <p>The changes or alterations are within the responsibility and jurisdiction of the City of Oceanside. The City of Oceanside does not appear to have adopted a program to construct such improvements and there does not appear to be a program to accept payments in lieu of construction. Due to the fact that the subject impacted segment is located outside the jurisdiction and regulatory authority of the City of Carlsbad, these impacts are considered significant and unmitigable. See CEQA Guidelines Section 15091 (a) (2). Fair Share: 25.5%</p>
	Intersections: None	None

Note: Fair share percentages for segments are based on project % of increase in ADT above existing ADT. Fair share percentages for intersections are based on project % of increase in PM peak hour approach volumes above existing PM peak hour approach volumes.

TABLE ES-1
MITIGATION SUMMARY

ALTERNATIVE	SIGNIFICANT IMPACT WITH PROJECT	MITIGATION
Buildout Alternative 1	Segments: College Blvd. (Vista Way to Plaza Dr.) Impact: Cumulative	<p>Since physical improvements to add lanes are infeasible, the Final, April 2012 City of Oceanside Circulation Element Update recommends reclassification of this segment of College Boulevard from a six-lane Major Arterial to a six-lane Prime Arterial. This reclassification would mitigate the project significant impacts. However, the Oceanside Update considers roadway reclassification infeasible, so that the Oceanside Circulation Element Update Final EIR recommends Overriding Considerations.</p> <p>The changes or alterations are within the responsibility and jurisdiction of the City of Oceanside. The City of Oceanside does not appear to have adopted a program to construct such improvements and there does not appear to be a program to accept payments in lieu of construction. Due to the fact that the subject impacted segment is located outside the jurisdiction and regulatory authority of the City of Carlsbad, these impacts are considered significant and unmitigable. See CEQA Guidelines Section 15091 (a) (2).</p> <p>Fair Share: 15.5%</p>
	College Blvd. (Plaza Dr. to Marron Rd.) Impact: Cumulative	<p>Since physical improvements to add lanes are infeasible, the Final, April 2012 City of Oceanside Circulation Element Update recommends reclassification of this segment of College Boulevard from a six-lane Major Arterial to a six-lane Prime Arterial. This reclassification would mitigate the project significant impacts. However, the Oceanside Update considers roadway reclassification infeasible, so that the Oceanside Circulation Element Update Final EIR recommends Overriding Considerations.</p> <p>The changes or alterations are within the responsibility and jurisdiction of the City of Oceanside. The City of Oceanside does not appear to have adopted a program to construct such improvements and there does not appear to be a program to accept payments in lieu of construction. Due to the fact that the subject impacted segment is located outside the jurisdiction and regulatory authority of the City of Carlsbad, these impacts are considered significant and unmitigable. See CEQA Guidelines Section 15091 (a) (2).</p> <p>Fair Share: 32.8%</p>

Note: Fair share percentages for segments are based on project % of increase in ADT above existing ADT. Fair share percentages for intersections are based on project % of increase in PM peak hour approach volumes above existing PM peak hour approach volumes.

TABLE ES-1
MITIGATION SUMMARY

ALTERNATIVE	SIGNIFICANT IMPACT WITH PROJECT	MITIGATION
Buildout Alternative 1 (Continued)	College Blvd. (Marron Rd. to South City Limit) Impact: Cumulative	<p>The Final, April 2012 City of Oceanside Circulation Element Update recommends reclassification of this segment of College Boulevard from a four-lane Major Arterial to a six-lane Major Arterial. This reclassification would mitigate the project significant impacts. However, the Oceanside Update considers roadway reclassification and widening infeasible, so that the Oceanside Circulation Element Update Final EIR recommends Overriding Considerations.</p> <p>The changes or alterations are within the responsibility and jurisdiction of the City of Oceanside. The City of Oceanside does not appear to have adopted a program to construct such improvements and there does not appear to be a program to accept payments in lieu of construction. Due to the fact that the subject impacted segment is located outside the jurisdiction and regulatory authority of the City of Carlsbad, these impacts are considered significant and unmitigable. See CEQA Guidelines Section 15091 (a) (2). Fair Share: 6.4%</p>
	Intersections:	
	College Blvd. / Marron Rd. - Lake Blvd) Impact: Cumulative	<p>The Oceanside Circulation Element Update Final EIR recommends adding a second northbound right-turn only lane on College Boulevard to eastbound Lake Boulevard.</p> <p>The changes or alterations are within the responsibility and jurisdiction of the City of Oceanside. The City of Oceanside does not appear to have adopted a program to construct such improvements and there does not appear to be a program to accept payments in lieu of construction. Due to the fact that the subject impacted intersection is located outside the jurisdiction and regulatory authority of the City of Carlsbad, these impacts are considered significant and unmitigable. See CEQA Guidelines Section 15091 (a) (2). Fair Share: 13.3%</p>

Note: Fair share percentages for segments are based on project % of increase in ADT above existing ADT. Fair share percentages for intersections are based on project % of increase in PM peak hour approach volumes above existing PM peak hour approach volumes.

TABLE ES-1
MITIGATION SUMMARY

ALTERNATIVE	SIGNIFICANT IMPACT WITH PROJECT	MITIGATION
Buildout Alternative 2	<p>Segments: College Blvd. (Vista Way to Plaza Dr.) Impact: Cumulative</p>	<p>Since physical improvements to add lanes are infeasible, the Final, April 2012 City of Oceanside Circulation Element Update recommends reclassification of this segment of College Boulevard from a six-lane Major Arterial to a six-lane Prime Arterial. This reclassification would mitigate the project significant impacts. However, the Oceanside Update considers roadway reclassification infeasible, so that the Oceanside Circulation Element Update Final EIR recommends Overriding Considerations.</p> <p>The changes or alterations are within the responsibility and jurisdiction of the City of Oceanside. The City of Oceanside does not appear to have adopted a program to construct such improvements and there does not appear to be a program to accept payments in lieu of construction. Due to the fact that the subject impacted segment is located outside the jurisdiction and regulatory authority of the City of Carlsbad, these impacts are considered significant and unmitigable. See CEQA Guidelines Section 15091 (a) (2). Fair Share: 20.1%</p>
	<p>College Blvd. (Plaza Dr. to Marron Rd.) Impact: Cumulative</p>	<p>Since physical improvements to add lanes are infeasible, the Final, April 2012 City of Oceanside Circulation Element Update recommends reclassification of this segment of College Boulevard from a six-lane Major Arterial to a six-lane Prime Arterial. This reclassification would mitigate the project significant impacts. However, the Oceanside Update considers roadway reclassification infeasible, so that the Oceanside Circulation Element Update Final EIR recommends Overriding Considerations.</p> <p>The changes or alterations are within the responsibility and jurisdiction of the City of Oceanside. The City of Oceanside does not appear to have adopted a program to construct such improvements and there does not appear to be a program to accept payments in lieu of construction. Due to the fact that the subject impacted segment is located outside the jurisdiction and regulatory authority of the City of Carlsbad, these impacts are considered significant and unmitigable. See CEQA Guidelines Section 15091 (a) (2). Fair Share: 28.6%</p>
	<p>College Blvd. (Marron Rd. to South City Limit) Impact: Cumulative</p>	<p>The Final, April 2012 City of Oceanside Circulation Element Update recommends reclassification of this segment of College Boulevard from a four-lane Major Arterial to a six-lane Major Arterial. This reclassification would mitigate the project significant impacts. However, the Oceanside Update considers roadway reclassification and widening infeasible, so that the Oceanside Circulation Element Update Final EIR recommends Overriding Considerations.</p> <p>The changes or alterations are within the responsibility and jurisdiction of the City of Oceanside. The City of Oceanside does not appear to have adopted a program to construct such improvements and there does not appear to be a program to accept payments in lieu of construction. Due to the fact that the subject impacted segment is located outside the jurisdiction and regulatory authority of the City of Carlsbad, these impacts are considered significant and unmitigable. See CEQA Guidelines Section 1509 (a) (2). Fair Share: 7.3%</p>

Note: Fair share percentages for segments are based on project % of increase in ADT above existing ADT. Fair share percentages for intersections are based on project % of increase in PM peak hour approach volumes above existing PM peak hour approach volumes.

TABLE ES-1
MITIGATION SUMMARY

ALTERNATIVE	SIGNIFICANT IMPACT WITH PROJECT	MITIGATION
Buildout Alternative 2 (Continued)	Vista Way (College Blvd. to SR-78 WB Ramps) Impacts: Direct	<p>The Oceanside Circulation Element Update recommends providing a westbound dedicated right-turn lane and lengthening the westbound left-turn lanes at the College Boulevard / Vista Way intersection by restriping the existing lanes. As stated in the Update, these improvements would improve peak hour operations but would not fully mitigate segment impacts, so that Overriding Considerations should be adopted.</p> <p>The changes or alterations are within the responsibility and jurisdiction of the City of Oceanside. The City of Oceanside does not appear to have adopted a program to construct such improvements and there does not appear to be a program to accept payments in lieu of construction. Due to the fact that the subject impacted segment is located outside the jurisdiction and regulatory authority of the City of Carlsbad, these impacts are considered significant and unmitigable. See CEQA Guidelines Section 15091 (a) (2). Fair Share: 30.8%</p>
	Intersections:	
	College Blvd. / Marron Rd. - Lake Blvd) Impact: Cumulative	<p>The Oceanside Circulation Element Update Final EIR recommends adding a second northbound right-turn only lane on College Boulevard to eastbound Lake Boulevard.</p> <p>The changes or alterations are within the responsibility and jurisdiction of the City of Oceanside. The City of Oceanside does not appear to have adopted a program to construct such improvements and there does not appear to be a program to accept payments in lieu of construction. Due to the fact that the subject impacted intersection is located outside the jurisdiction and regulatory authority of the City of Carlsbad, these impacts are considered significant and unmitigable. See CEQA Guidelines Section 15091 (a) (2). Fair Share: 61.2%</p>

Note: Fair share percentages for segments are based on project % of increase in ADT above existing ADT. Fair share percentages for intersections are based on project % of increase in PM peak hour approach volumes above existing PM peak hour approach volumes.

To determine if the Marron Road deletion causes significant impacts, a comparison of intersection levels of service for the alternatives shows that only two intersections would be at unacceptable levels of service (LOS “E” or “F”), without mitigation, for Alternatives 1 and 2.

For Alternatives 1 and 2, both of these locations are at acceptable levels of service. Since alternative 2 includes the deletion of Marron Road, and all evaluated intersections would be at acceptable levels of service after planned mitigation consistent with the Oceanside General Plan Circulation Element Update, it can be concluded that the Alternative 2 deletion of Marron Road would have less than significant impacts.

To isolate the effect of deleting Marron Road with the Rancho Del Oro Road interchange, a comparison of intersection delay at the two intersections with acceptable levels of service after mitigation was conducted for Alternatives 1 and 2.

Table ES-2 below shows the results of this comparison.

Since both intersections are at an acceptable level of service after the same mitigation was applied to both alternatives, it can be stated that the deletion of Marron Road would have less than significant impacts to study area intersections.

TABLE ES-2

Alternative 1 and Alternative 2 Intersection Delay Comparison

	WITH MARRON RD.	WITHOUT MARRON RD.
	Alternative 1	Alternative 2
ECR / Vista Way (PM)	45.6 LOS D	47.8 LOS D
College Blvd. / Marron Rd. – Lake Blvd.	55.0 LOS D	54.9 LOS D

As shown, without Marron road, the increase in PM peak hour intersection delay at these two locations is within the allowable delay for an acceptable level of service “D”, so that it can be concluded that the Alternative 2 deletion of Marron Road would have less than significant impacts to study area intersections.

1.0 INTRODUCTION

Urban Systems Associates, Inc. (USAI) has been retained by Quarry Creek Investors, LLC to evaluate potential traffic impacts due to development of the 656 dwelling unit Quarry Creek Master Plan. The Quarry Creek Master Plan also includes 1.5 net acres of community facilities, and a 0.9 acre park and ride lot.

The project is located in northern Carlsbad and will have access from Marron Road, which currently extends through the Quarry Creek Shopping Center from College Boulevard in the City of Oceanside, and from Haymar Drive which extends to the west from College Boulevard. **Figure 1-1** shows the project location.

This traffic analysis was conducted for Existing Conditions, Project Plus Existing Conditions, Near-Term and Near-Term Plus Project Conditions, Buildout and Buildout Plus Project Conditions.

The Existing Conditions, Project Plus Existing Conditions, Near-Term and Near-Term Plus Project Conditions evaluations were conducted assuming the current existing street network without the future extensions of Marron Road to the west to connect with El Camino Real, and without the State Route (SR) 78 / Rancho Del Oro Road interchange, and the Rancho Del Oro Road extension to Marron Road.

The Buildout and Buildout Plus Project Conditions were evaluated for two street network alternatives:

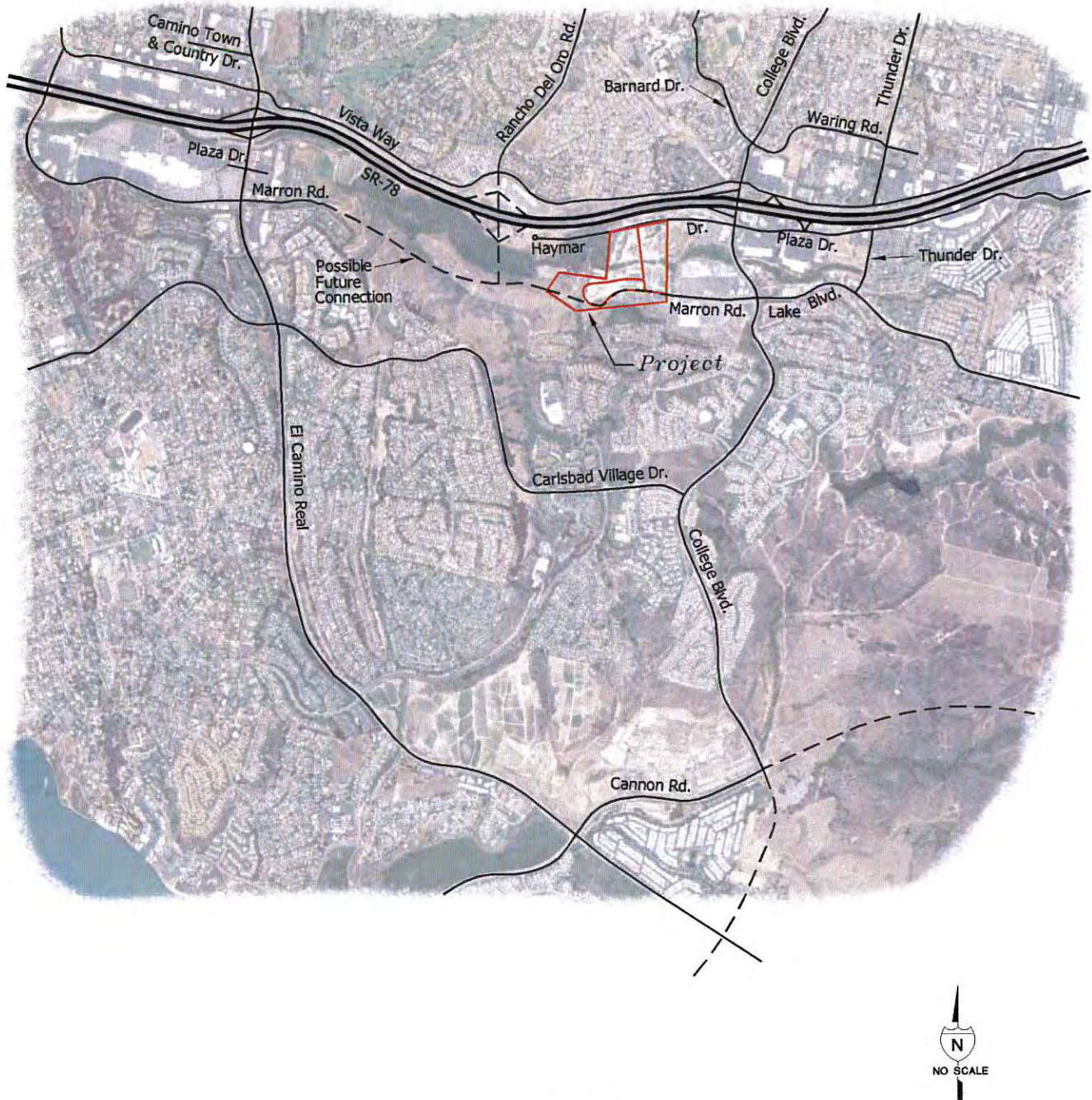


FIGURE 1-1
Project Location Map

Alternative 1 – This street network assumes all roadways that are included in the City of Carlsbad and City of Oceanside General Plan Circulation Plans. This street network assumes the extension of Marron Road from the existing east end at the Quarry Creek Shopping Center property line, to the existing west end approximately 1,000 feet east of El Camino Real, and through a designated open spare area, all within the City of Carlsbad.

Alternative 2 – This street network assumes the Rancho Del Oro Road interchange at SR-78 is constructed, but the Marron Road extension through the designated open space area is not included, nor is the Rancho Del Oro Road extension to Marron Road.

The project preferred alternative is Alternative 2 which does not assume the Marron Road extension through the open space area.

These alternatives and the scope of this study were coordinated for agreement from both Oceanside and Carlsbad engineering departments.

The Quarry Creek site is identified by SANDAG as a Smart Growth Community Center on the Smart Growth Concept Map for the San Diego Region. The project site is located in close proximity to other uses, including retail, employment and educational uses. In addition, the site is served by transit and the project proposes a new park and ride lot on the north side of Haymar Drive within the project boundary. The mixed use environment of the area, the availability of transit services and park and ride facilities and the walkable nature of the planned development will reduce traffic generation from the site by promoting

alternative forms of transportation (walking, biking and transit) and by facilitating multiple destinations in a single vehicle trip. While it is realistic to expect some reductions in trips, the analysis in this report does not include any mixed use credits and therefore represents a worst-case scenario in terms of vehicular trip generation from the proposed project.

2.0 ANALYSIS METHODOLOGY

The San Diego Traffic Engineers' Council (SANTEC) / Institution of Transportation Engineers (ITE – California Border Station) Guidelines for Traffic Impact Studies in the San Diego Region was used as a guide in the preparation of this traffic study.

The Final Program Environmental Impacts Report for the City of Oceanside Circulation Element Update (April 2012) was also reviewed for determining intersection and street segment analysis for those locations within the project study area that are within the City of Oceanside.

The City of Carlsbad Growth Management Plan Circulation Performance Standards were used for evaluating intersections and street segments within the City of Carlsbad.

The Caltrans Guide for the Preparation of Traffic Impact Studies, December 2002, was consulted for determining the evaluation criteria for State Route 78.

2.1 SEGMENT ANALYSIS

Much of the study area roadway segments are in the City of Oceanside, so that City of Oceanside criteria were used for the analysis of those segments. **Table 2-1** shows the Roadway Classification, Level of Service, and Capacity table from the Final Program Environmental Impact Report for the Oceanside Circulation Element Update, Appendix E which includes the City of Oceanside Master Transportation Plan. Also, as stated in that Circulation Element Update, segment level of service (LOS) “D” is to be considered acceptable in Oceanside, which is consistent with regional and City of Carlsbad acceptable levels of service for roadway segments.

TABLE 2-1
Circulation Element Roadway Classification LOS & Capacity
(Use for City of Oceanside Only)

Class	Lanes	Cross Section (1)	Level of Service				
			A	B	C	D	E
Expressway	6	102/160, 122/200	30,000	42,000	60,000	70,000	80,000
Expressway	4	102/160, 122/200	25,000	35,000	50,000	55,000	60,000
Prime Arterial	6	104/124	25,000	35,000	50,000	55,000	60,000
6-Lane Major Arterial	6	104/124	20,000	28,000	40,000	45,000	50,000
5-Lane Major Arterial (2)	5	102/122	17,500	24,500	35,000	40,000	45,000
4-Lane Major Arterial	4	80/100	15,000	21,000	30,000	35,000	40,000
Secondary Collector (4 lanes with 2-way left turn lane)	4	64/84	10,000	14,000	20,000	25,000	30,000
Secondary Collector (4 lanes without 2-way left-turn lane, with left turn pockets)	4	54/74, 60/80	9,000	13,000	18,000	22,000	25,000
Collector (commercial fronting, 2- lanes with 2-way left turn lane) (3)	2	50/70	5,000	7,000	10,000	13,000	15,000
Collector (residential streets in the Circulation Element or industrial fronting)	2	40/60, 50/70	4,000	5,500	7,500	9,000	10,000
Local Street (residential streets NOT in the Circulation Element)	2	36/56, 40/60	-	-	2,200	-	-

Note:

1. Cross sections are listed as curb-to-curb width / total right-of-way width, in feet.
2. Vandergrift Boulevard is the only roadway designated as a 5-Lane Major Arterial. It is not intended that other roadways be built to 5-Lane Major Arterial standards.
3. This capacity will also be assumed for two-lane one-way collectors.

Source:

Traffic Impact Analysis Report Oceanside Master Transportation Plan Final, April 2012, Table 3-1.

Within Carlsbad, the Growth Management Plan Circulation Performance Standard is used for roadway segment level of service determination. That standard requires a peak hour level of service “D” to be considered acceptable. Following that methodology, the levels of service for street segments between intersections were determined using a 1,800 vehicles per hour capacity per lane and volume to capacity ratio corresponding to levels of service.

2.2 INTERSECTION ANALYSIS

For the determination of direct project impacts at intersections within Carlsbad, as required by the City of Carlsbad Growth Management Plan Circulation Performance Standard, the Intersection Capacity Utilization method of signalized intersection evaluations was used for Existing and Project Plus Existing Conditions.

For Near-Term and Buildout conditions, and for all conditions within Oceanside, the intersection evaluation follows the procedures obtained in the Highway Capacity Manual (HCM) 2000, chapter 16.

The Highway Capacity Manual computer software program was used for these intersection analyses and to estimate average seconds of traffic control delay per vehicle and to relate the delay to levels of service. **Table 2-2** shows the level of service relation to delay used for this analysis.

2.3 SIGNIFICANCE THRESHOLDS

In order to determine if the project would have a significant traffic impact on roadway segments or intersections, both the SANTEC / ITE Guidelines and the City of Carlsbad Growth Management Plan Circulation Performance Standard were used.

TABLE 2-2

HCM Level of Service Description for Signalized Intersections

Level of Service	Description of Traffic Conditions	Control Delay (sec/veh)
A	Insignificant delays: no approach phase is fully utilized and no vehicle waits longer than one red indication	0-10
B	Minimal delays: an occasional approach phase is fully utilized. Drivers begin to feel restricted.	>10-20
C	Acceptable delays: major approach phase may become fully utilized. Most drivers feel somewhat restricted.	>20-35
D	Tolerable delays: drivers may wait through more than one red indication. Queues may develop but dissipate rapidly, without excessive delays.	>35-55
E	Significant delays: volumes approaching capacity. Vehicles may wait through several cycles and long vehicle queues form upstream.	>55-80
F	Excessive delays: represents conditions at capacity, with extremely long delays. Queues may block upstream intersections.	>80

Source: Highway Capacity Manual, Transportation Research Board, 2000

1. If the addition of project traffic to a roadway segment or intersection causes the level of service to decrease from “D” to “E” or “F”, then the project is considered to have a significant impact.

2. If a facility is at level of service “E” or “F” before the addition of project traffic, then the following changes are allowed:

- Roadway Segments – An increase in the volume to capacity (v/c) ratio based on average daily traffic volumes, of no more than 0.02 is acceptable. However, a segment peak hour analysis must be completed under project conditions to determine peak hour significance of project impacts.
- Intersections – An increase in delay of no more than 2.0 seconds is acceptable.
- Freeways – An increase in volume to capacity (V/C) ratio of no more than 0.01 is acceptable.

2.4 STATE ROUTE 78 MAINLINE SEGMENTS

As described in the Caltrans Guidelines a peak hour analysis for both AM and PM peak hours is provided. Average daily traffic volumes on SR-78 were converted to peak hour flows by using a Design Hour Factor (K), and the Directional Factor (D), as published in Caltrans’ traffic volume summaries for SR-78. The peak hour volumes are compared to the capacity of the freeway segment and the resulting volume to capacity ratio relates to a level of service for multi-lane highways. **Table 2-3** shows the level of service based on volume to capacity ratios typically used by Caltrans and also provided in the HCM.

TABLE 2-3
SR-78 Freeway Segment Level of Service Definitions

Caltrans District 11 Freeway Level of Service Definitions			
LOS	V/C	Congestion / Delay	Traffic Description
Used for freeways, expressways, and conventional highways			
A	0-00.41	None	Free Flow
B	0.42-0.62	None	Free to stable flow, light to moderate volumes.
C	0.63-0.80	None to minimal	Stable flow, moderate volumes, freedom to maneuver noticeably restricted.
D	0.81-0.92	Minimal to substantial	Approaches unstable flow, heavy volumes, very limited freedom to maneuver.
E	0.93-1.00	Significant	Extremely unstable, slow, maneuverability and psychological comfort extremely poor.
Used for freeways and expressways			
F0	1.01-1.25	Considerable (0-1 hour delay)	Forced flow, heavy congestion, long queues form behind breakdown points, stop and go.
F1	1.26-1.35	Severe (1-2 hour delay)	Very heavy congestion, very long queues.
F2	1.36-1.45	Very severe (2-3 hour delay)	Extremely heavy congestion, longer queues, more numerous breakdown points, longer stop periods.
F3	>1.46	Extremely severe (3+hours of delay)	Gridlock.

Source: Caltrans, 1992

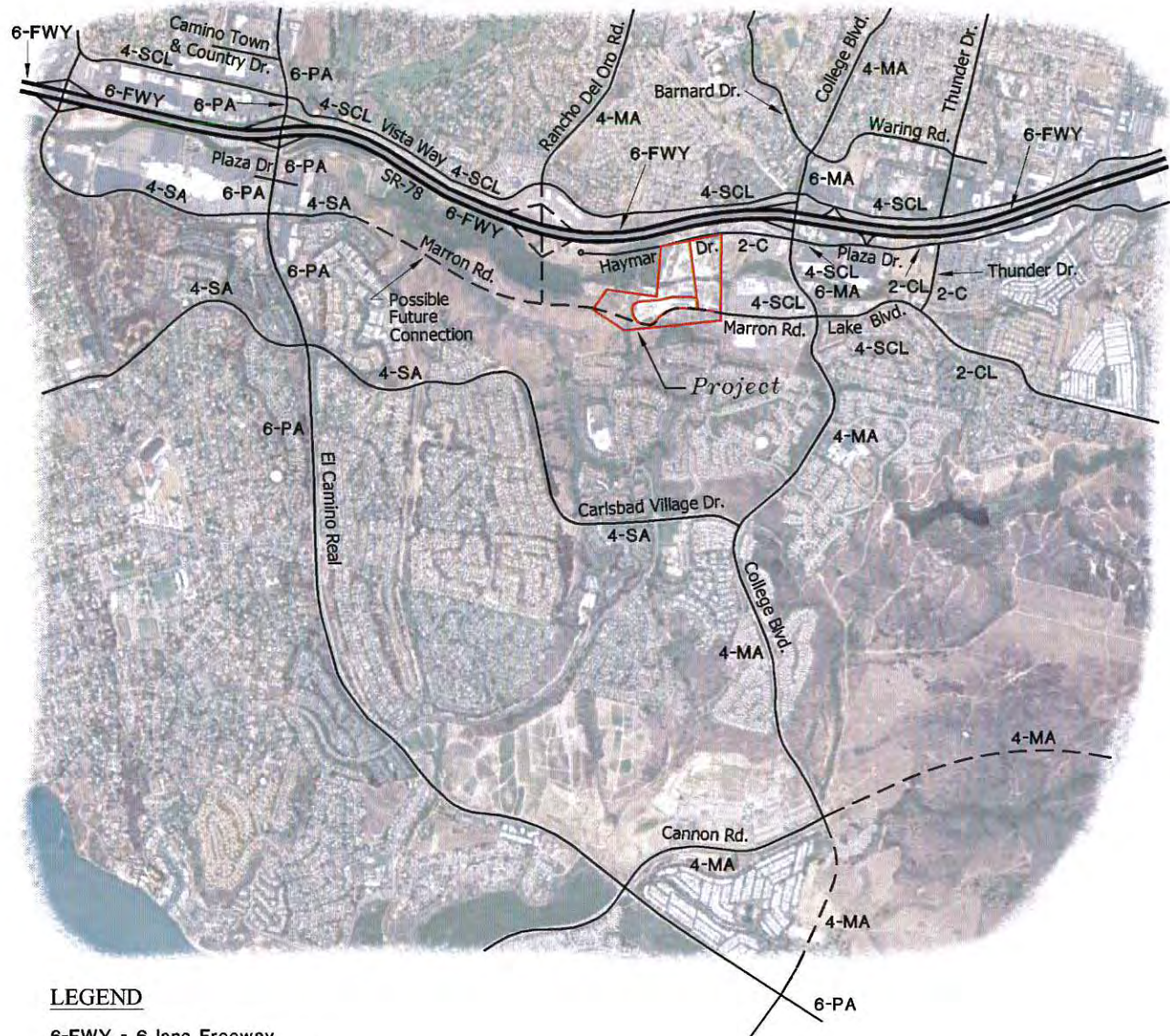
3.0 EXISTING CONDITIONS

The SANTEC / ITE Guidelines for the Preparation of Traffic Impact Studies in the San Diego Region recommends the scope of a traffic study to include local roadway segments and intersections that are expected to have fifty or more project peak hour trips added in either direction to the existing roadway traffic. As shown in the project description section of this report (Section 4.0), the study area has been determined by reviewing select zone assignments from the SANDAG computer traffic forecasts that predict the directional distribution of project traffic. In addition other locations of interest were evaluated to compare the effects of the different roadway alternatives.

3.1 STREET SEGMENTS

The following describes roadways expected to be impacted by fifty or more project peak hour vehicle trips and other key roadways, and are shown in **Figure 3-1** along with current functional roadway classifications.

College Boulevard: This roadway is a major arterial of varying width and lanes extending from north of State Route 78 in the City of Oceanside to south of the Oceanside City limit into Carlsbad. Within Carlsbad this roadway is constructed with four lanes from the City limit to Cannon Road. Cannon Road extends to the west from College Boulevard providing access to Central Carlsbad and Interstate 5. The segment of College Boulevard connecting to El Camino Real has not yet been constructed, but is expected to be completed before the Quarry Creek Master Plan adds traffic to this location.



LEGEND

- 6-FWY - 6 lane Freeway
- 6-PA - 6 lane Primary Arterial
- 6-MA - 6 lane Major Arterial
- 4-MA - 4 lane Major Arterial
- 4-SA - 4 lane Secondary Arterial
- 4-SCL - 4 lane Secondary Collector (With two-way left turn lane)
- 4-SC - 4 lane Secondary Collector (Without two-way left turn lane)
- 2-CL - 2 lane Collector (With two-way left turn lane)
- 2-C - 2 lane Collector (Without two-way left turn lane)



FIGURE 3-1
Existing Roadway Classifications

Marron Road: This roadway is a four lane secondary arterial (with left turn lane) within Oceanside extending west from College Boulevard through the Quarry Creek Shopping Center to the City boundary. Within Carlsbad, this future roadway is classified as a four lane secondary arterial and would extend to El Camino Real through an open space area if constructed.

A short segment is constructed east of El Camino Real and serves the adjacent shopping centers and residential neighborhoods. Marron Road extends west of El Camino Real adjacent to the Plaza Camino Real Shopping Center.

Lake Boulevard: This street is a Secondary Collector that provides access to residential neighborhoods east of College Boulevard in Oceanside. It is a four-lane roadway with a continuous left turn lane from College Boulevard to Thunder Drive, and reduces to two lanes east of Thunder Drive.

Plaza Drive: This street is a Secondary Collector, divided, with four lanes from College Boulevard to the SR-78 eastbound off-and-on ramps, in Oceanside. The roadway narrows to two lanes between the SR-78 ramp intersection and Thunder Drive.

Haymar Drive: This cul-de-sac street extends to the west from College Boulevard as a two-lane Collector with a left turn lane at the College Boulevard intersection. The western portion is unimproved and provides access into and out of the existing quarry at this location, and will be improved as a two lane local street within Carlsbad, providing access to the Quarry Creek project.

Vista Way: This roadway is a Secondary Collector and provides access to residential neighborhoods and retail / commercial centers. It is a four-lane roadway with a continuous two-way left turn lane between Jefferson Street and the east City limits of Oceanside.

El Camino Real: This roadway is a six-lane Prime Arterial within the study area in Oceanside extending from north of SR-78 to the southern City limit. Within Carlsbad this is also a six-lane Prime Arterial within the study area, but varies in width south of Chestnut Drive.

Existing twenty-four hour roadway segment volumes were obtained from a traffic count subcontractor, and are shown in **Figure 3-2**.

Table 3-1 shows roadway segment existing levels of service for those segments within Oceanside using the capacity and level of service standards shown in **Table 2-1**. Only two study area Oceanside segments currently operate deficiently, Vista Way between College Boulevard and the SR-78 westbound ramps, and Lake Boulevard between Thunder Drive and Sundown Lane, both at LOS “E”.

On Vista Way, the Oceanside Circulation Element Update recommends providing a westbound dedicated right-turn lane and lengthening the westbound left-turn lanes at the College Boulevard / Vista Way intersection by restriping the existing lanes. As stated in the Update, these improvements would improve peak hour operations but would not fully mitigate segment impacts, so that Overriding Considerations should be adopted. The dedicated westbound right-turn-only lane is a future unfunded project, while the restriping is a condition of approval for the Tri-City Medical Office project.

On Lake Boulevard the Oceanside Circulation Element Update Final EIR recommends retaining this segment as two lanes and adopting Overriding Considerations, due to an agreement between the City and the residents to maintain this as a two lane road with a two-way left turn lane pocket.

The roadway segments within Carlsbad have been evaluated during AM and PM peak hours, as required by the City's Growth Management Plan. The peak hour segment volumes are tabulated in **Table 3-2**. No Carlsbad roadway segments evaluated operate deficiently, as shown in this table.



TABLE 3-1
Existing Street Segment Levels of Service
Within Oceanside

			Existing		
Segment	Current Classification	LOS E Capacity (1)	Volume	V/C (2)	LOS (3)
<u>El Camino Real</u>					
Via Las Rosas to Vista Way	6-PA	60,000	36,675	0.611	C
Vista Way to SR-78 WB Ramps	6-PA	60,000	53,859	0.898	D
<u>College Blvd.</u>					
Barnard Dr. to Vista Way	6-MA	50,000	37,572	0.751	C
Vista Way to Plaza Dr.	6-MA	50,000	44,884	0.898	D
Plaza Dr. to Marron Rd.	6-MA	50,000	36,219	0.724	C
Marron Rd./ to South City Limit	4-MA	40,000	24,475	0.612	C
<u>Vista Way</u>					
Jefferson St. to El Camino Real	4-SCL	30,000	15,579	0.519	C
El Camino Real to Rancho Del Oro Rd.	4-SCL	30,000	15,330	0.511	C
Rancho Del Oro Rd. to College Blvd.	4-SCL	30,000	20,300	0.677	D
College Blvd. to SR-78 WB Ramps	4-SCL	30,000	28,000	0.933	E
SR-78 WB Ramps to Thunder Dr.	4-SCL	30,000	16,097	0.537	C
<u>Marron Rd. / Lake Blvd.</u>					
Driveway to College Blvd.	4-SCL	30,000	16,907	0.564	C
College Blvd. to Thunder Dr.	4-SCL	30,000	13,813	0.460	C
Thunder Dr. to Sundown Ln.	2-CL	15,000	14,800	0.987	E
<u>Haymar Dr. / Plaza Dr.</u>					
Driveway to College Blvd.	2-C	10,000	1,510	0.151	A
College Blvd. to SR-78 EB Ramps	4-SCL	30,000	22,063	0.735	D
SR-78 EB Ramps to Thunder Dr.	2-CL	15,000	11,965	0.798	D
<u>Rancho Del Oro Rd.</u>					
Vista Way to Tournament Dr.	4-MA	40,000	13,900	0.348	A

Notes:

1. Capacity of roadway at LOS E per City of Oceanside Master Transportation Plan, April 2012, Table 3-1.
2. V/C = Volume to capacity at LOS E ratio.
3. LOS = Level of Service.

TABLE 3-2
Existing Street Segment Levels of Service
Within Carlsbad

			AM PEAK HOUR			PM PEAK HOUR		
Segment	D	Lanes	Peak Hour Volume	V / C (1)	LOS	Peak Hour Volume	V / C (1)	LOS
<u>El Camino Real</u>								
SR-78 EB Ramps - Plaza Dr.	NB	3	880	0.16	A	1,873	0.35	A
	SB	3	1,707	0.32	A	1,581	0.29	A
Plaza Dr. - Marron Rd.	NB	3	708	0.13	A	1,357	0.25	A
	SB	3	1,065	0.20	A	1,035	0.19	A
Marron Rd. - Carlsbad Village Dr.	NB	3	641	0.12	A	1,324	0.25	A
	SB	3	1,037	0.19	A	894	0.17	A
Carlsbad Village Dr. - Chestnut Ave.	NB	3	421	0.08	A	1,256	0.23	A
	SB	3	940	0.17	A	684	0.13	A
<u>College Blvd.</u>								
Lake Blvd. - Carlsbad Village Dr.	NB	2	962	0.27	A	1,479	0.42	A
	SB	2	1,869	0.52	A	954	0.27	A
Carlsbad Village Dr. - Cannon Rd.	NB	2	442	0.12	A	1,351	0.38	A
	SB	2	1,572	0.44	A	684	0.19	A
<u>Marron Rd.</u>								
Monroe Ave. - El Camino Real	EB	2	110	0.03	A	391	0.11	A
	WB	2	138	0.04	A	397	0.11	A
El Camino Real - East End	EB	2	146	0.04	A	453	0.13	A
	WB	2	241	0.07	A	417	0.12	A
<u>Carlsbad Village Dr.</u>								
El Camino Real - Avenida De Anita	EB	2	207	0.06	A	493	0.14	A
	WB	2	702	0.20	A	369	0.10	A
Tamarack Ave. - College Blvd.	EB	2	389	0.11	A	368	0.10	A
	WB	2	427	0.12	A	416	0.12	A

D = Direction

(1) = Based on 1,800 vehicles per lane per hour.

V / C = Volume divided by capacity

Source: Highest Approach Volumes at Intersections.

3.2 INTERSECTIONS

Traffic volumes for study area intersections were obtained for AM and PM peak hours. The locations are shown in **Figure 3-3**, and lane configurations are shown in **Figure 3-4**. The turning movement traffic volumes are shown in **Figure 3-5**.

The City of Carlsbad requires existing intersection levels of service to be evaluated using the Intersection Capacity Utilization method, while intersections within Oceanside were evaluated using HCM software. Therefore, two intersection level of service methods have been combined in the following table.

Table 3-3 shows intersection levels of service for portions of the study area within Oceanside using intersection delay (Delay) in seconds, while the Carlsbad intersections are evaluated using a percentage of intersection capacity (ICU), as footnoted.

As shown in this table, there are currently no deficiently operating intersections within the study area. Deficient operations occur at level of service “E” or “F”, while the evaluated intersections are at an acceptable “D” or better.

Appendix A includes intersection traffic count summaries and levels of service worksheets.

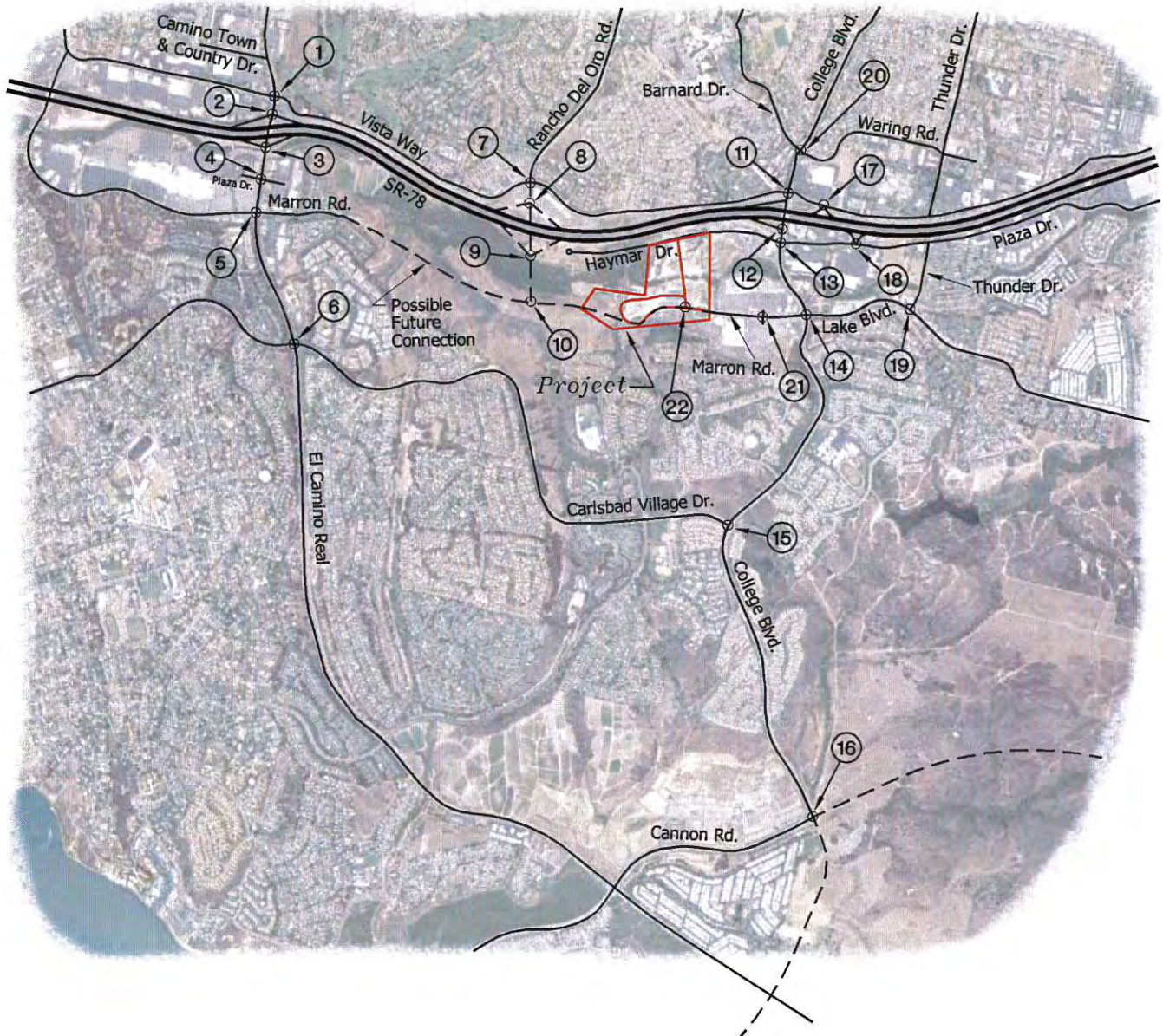


FIGURE 3-3
 Study Area Intersection Key



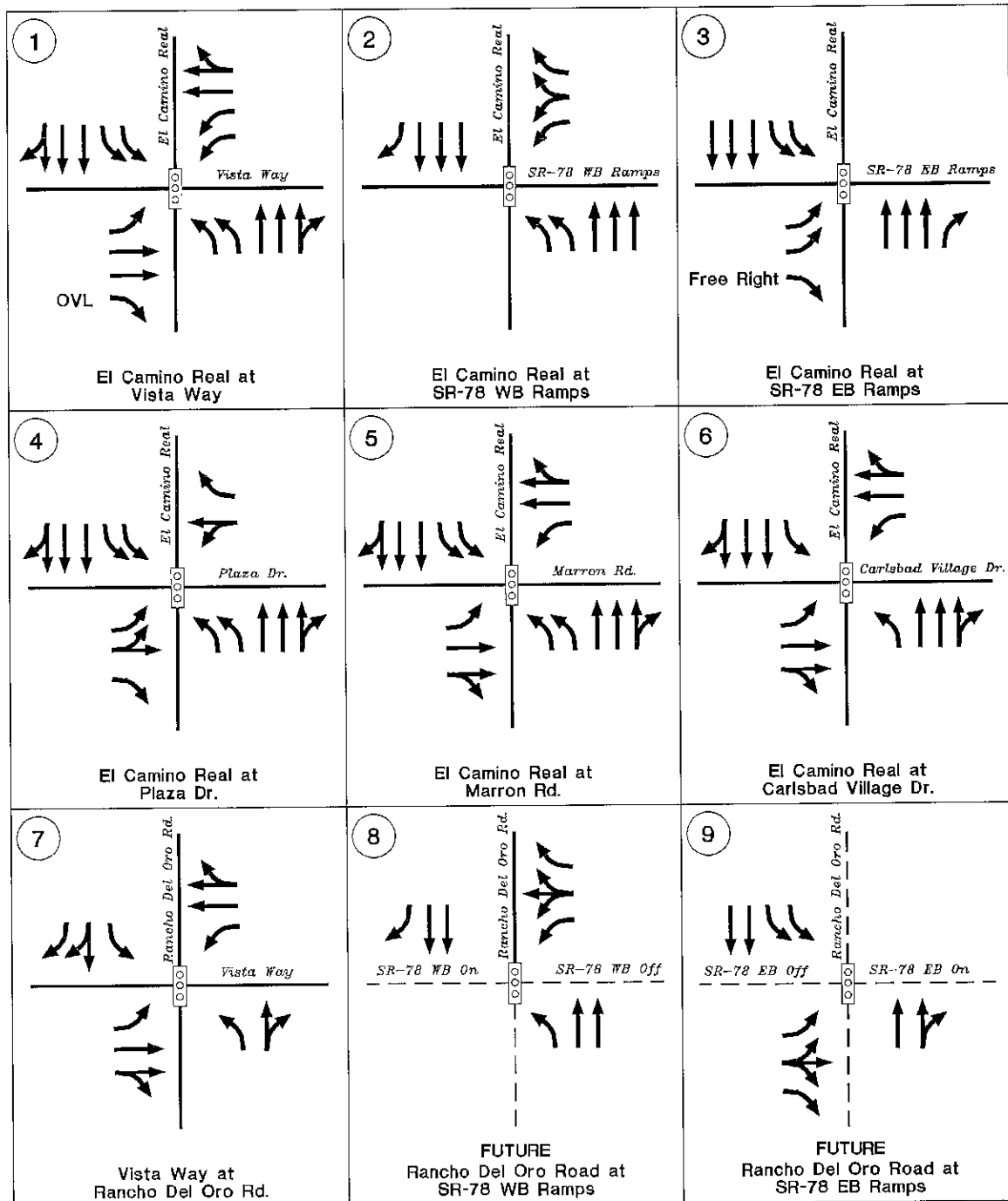
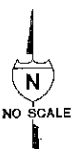


FIGURE 3-4
Existing Lane Configurations



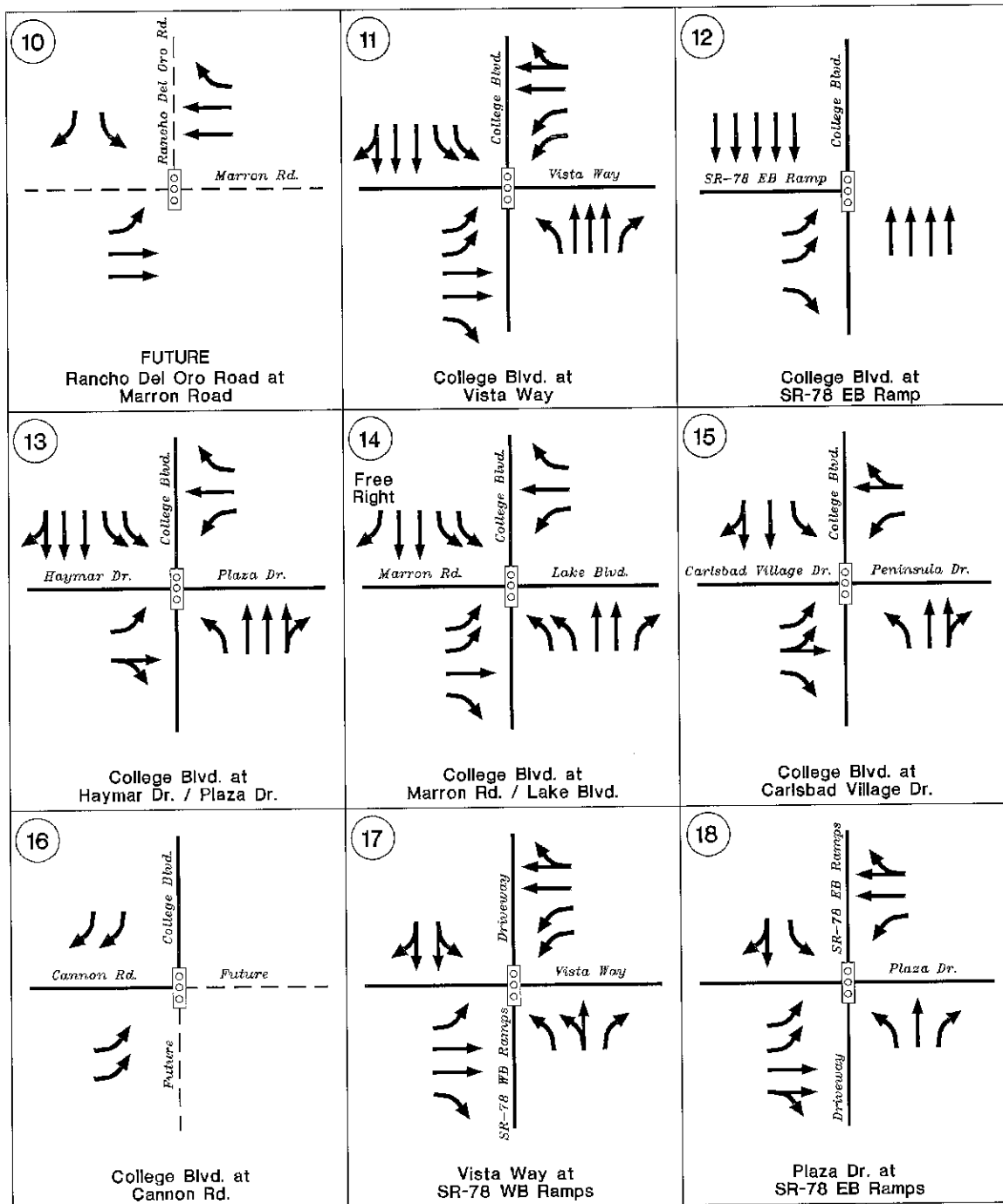
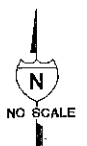


FIGURE 3-4
 Existing Lane Configurations



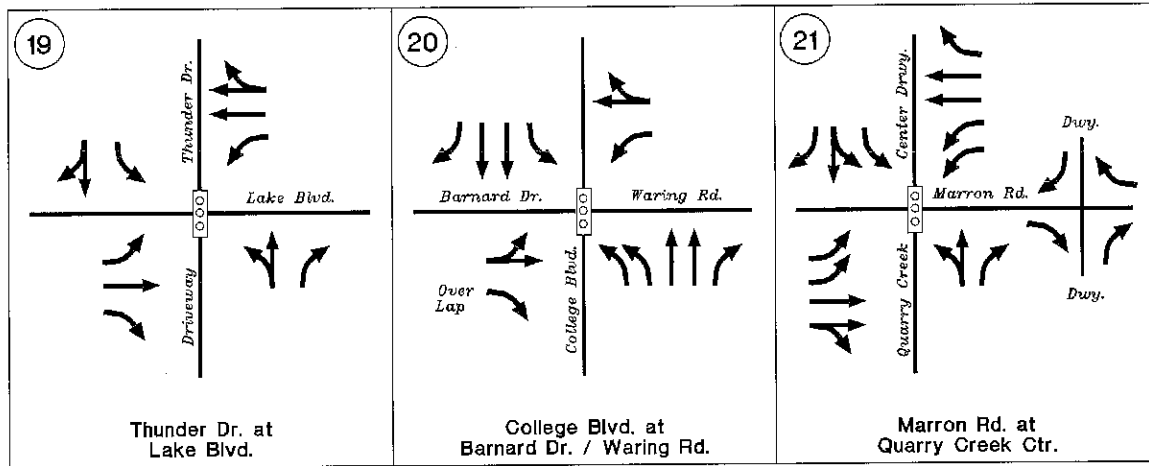


FIGURE 3-4
 Existing Lane Configurations



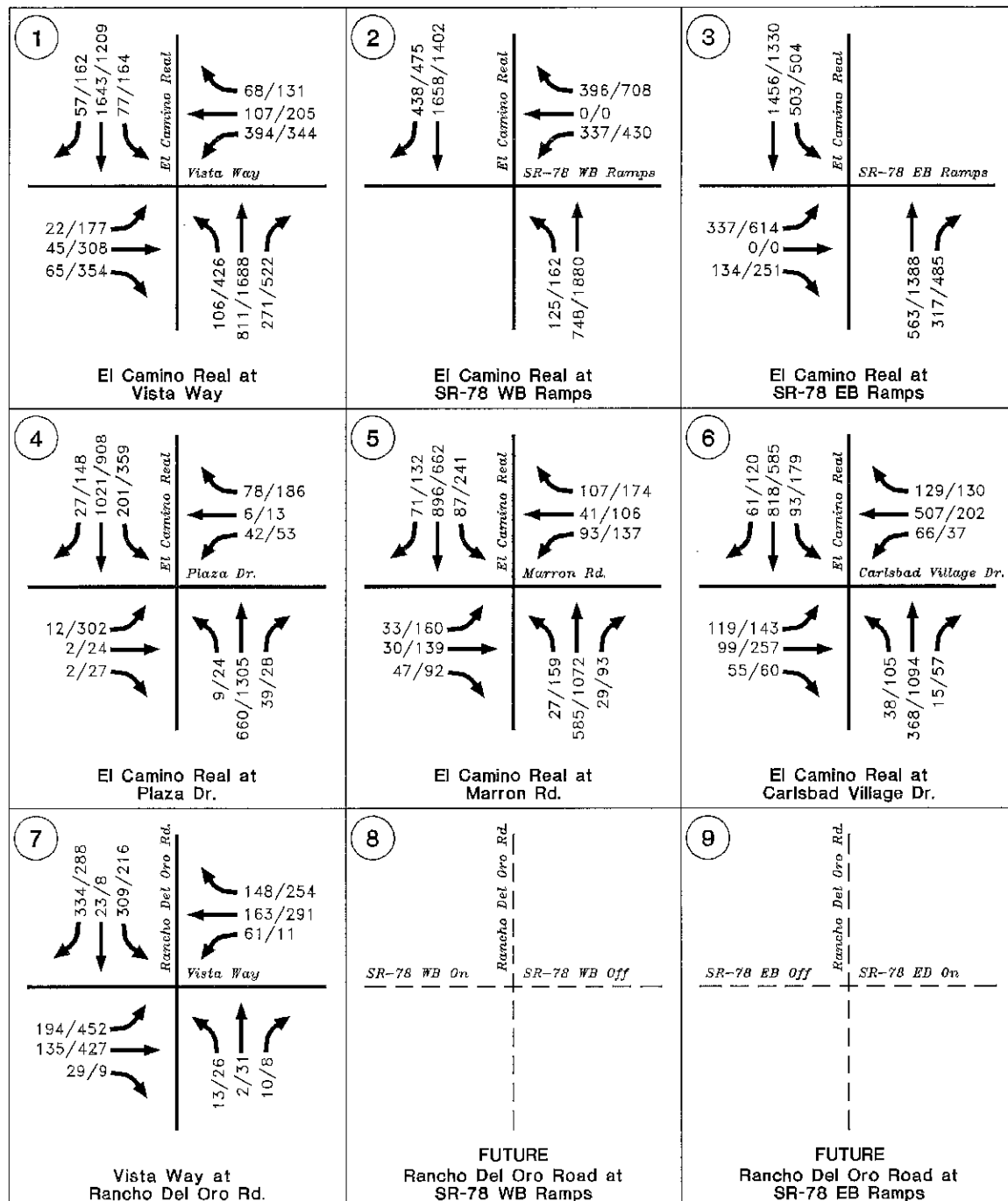


FIGURE 3-5
Existing AM/PM Peak Hour Volumes



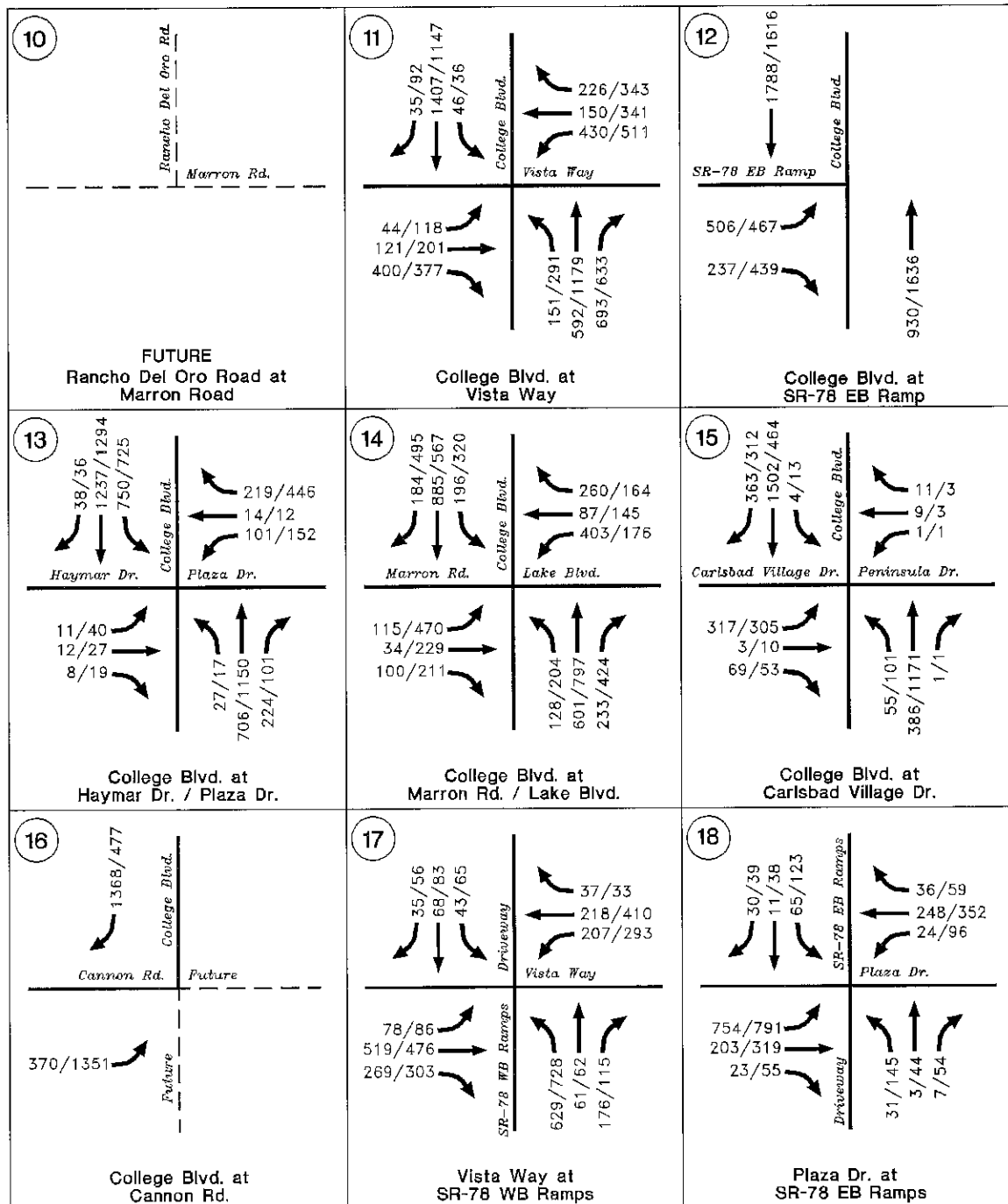


FIGURE 3-5
Existing AM/PM Peak Hour Volumes





NO SCALE

TABLE 3-3
Existing Intersection Levels of Service

Number	Intersection	City	AM Peak Hour		PM Peak Hour	
			ICU/ Delay (1)	LOS	ICU/ Delay (1)	LOS
1	El Camino Real / Vista Way	OS	33.5	C	49.0	D
2	El Camino Real / SR-78 WB Ramps	OS	21.4	C	26.7	C
3	El Camino Real / SR-78 EB Ramps	OS	16.7	B	36.3	D
4	El Camino Real / Plaza Dr.	CB	0.34 (1)	A	0.65 (1)	A
5	El Camino Real / Marron Rd.	CB	0.34 (1)	A	0.52 (1)	A
6	El Camino Real / Carlsbad Village Dr.	CB	0.45 (1)	A	0.55 (1)	A
7	Vista Way / Rancho Del Oro Rd.	OS	35.7	D	42.8	D
8	Rancho Del Oro Rd. / SR-78 WB Ramps	OS	N/A	N/A	N/A	N/A
9	Rancho Del Oro Rd. / SR-78 EB Ramps	OS	N/A	N/A	N/A	N/A
10	Marron Rd. / Rancho Del Oro Rd.	OS	N/A	N/A	N/A	N/A
11	College Blvd. / Vista Way	OS	34.7	C	40.3	D
12	College Blvd. / SR-78 EB Off Ramp	OS	8.2	A	8.7	A
13	College Blvd. / Plaza Dr.	OS	17.7	B	30.7	C
14	College Blvd. / Marron Rd. / Lake Blvd.	OS	27.7	C	29.6	C
15	College Blvd. / Carlsbad Village Dr.	CB	0.69 (1)	B	0.48 (1)	A
16	College Blvd. / Cannon Rd.	CB	N/A	N/A	N/A	N/A
17	Vista Way / SR-78 WB Ramps	OS	29.8	C	32.8	C
18	Plaza Dr. / SR-78 EB Ramps	OS	14.8	B	26.7	C
19	Lake Blvd. / Thunder Dr.	OS	29.8	C	32.1	C
20	College Blvd. / Waring Rd.	OS	26.7	C	30.4	C
21	Marron Rd. / Quarry Creek Ctr.	OS	23.5	C	32.4	C

Notes:

(1) ICU used in Carlsbad for existing conditions only.

N/A = Not Built

City:

OS = Oceanside

CB = Carlsbad

LOS	ICU	Seconds Delay
A	0.00 - 0.60	0.00 - 10.0
B	0.61 - 0.70	10.1 - 20.0
C	0.71 - 0.80	20.1 - 35.0
D	0.81 - 0.90	35.1 - 55.0
E	0.91 - 1.00	55.1 - 80.0
F	Over 1.00	Over 80.0

3.3 STATE ROUTE 78 MAINLINES

Table 3-4 shows existing State Route 78 freeway mainline segment levels of service.

As shown in this table, during peak hours segments of SR-78 operate at level of service “E”.

The Regional Congestion Management Program (CMP) has established the level of service standard for SR-78 between Interstate 5 and Rancho Santa Fe Road at LOS “F”, so the existing conditions do not exceed the CMP Freeway System Level of Service Standard.

TABLE 3-4
Existing Freeway Segment Levels of Service

Segment	Lanes (1-Way)	Cap.	ADT (1)	Peak Hour % (1)	Direction Split (1)	Truck Factor (2)	Peak Volume	V/C	LOS (3)
State Route 78									
I-5 to Jefferson St.	3+AUX	8,850	133,000	8	6 : 4	0.95	6,720	0.76	D
Jefferson St. to El Camino Real	3+AUX	8,850	124,000	8	6 : 4	0.95	6,265	0.71	C
El Camino Real to Rancho Del Oro Rd.	3	7,050	136,000	8	6 : 4	0.95	6,872	0.97	E
Rancho Del Oro Rd. to College Blvd.	3	7,050	136,000	8	6 : 4	0.95	6,872	0.97	E
College Blvd. to Emerald Dr.	3	7,050	123,000	8	6 : 4	0.95	6,215	0.88	D

Legend:

Cap. = Capacity

Mainlane Cap. @ 2,350 VPHPL

Auxiliary Lane Cap. @ 1,800 VPHPL

ADT= Average Daily Traffic

V/C= Volume to Capacity Ratio

LOS= Level of Service

Direction Split = % of Peak Hour in Peak Direction

Truck Factor = Represents Capacity Reduction due to Heavy Vehicles

Notes:

(1) Source: Caltrans 2010 Traffic Volumes.

(2) Highway Capacity Manual (2000) EQN. (3-2); assume 5% trucks plus RVs.

(3) Caltrans District 11 LOS Estimation Procedures, See Table 2-3

4.0 PROJECT DESCRIPTION

The Quarry Creek Master Plan consists of 656 dwelling units, including a mix of detached units, attached units, and apartments. The Master Plan also includes 1.5 net acres for community facilities that might include a day-care, and 0.9 acres for a park-and-ride lot. **Figure 4-1** shows the Quarry Creek Master Plan Site Plan.

Table 4-1 includes the vehicle trip generation for the Quarry Creek Master Plan. As shown in this table, the project is expected to generate 5,578 average daily vehicle trips, 469 AM peak hour trips (121 inbound; 348 outbound), and 572 PM peak hour trips (386 inbound; 186 outbound). External trips have been adjusted down slightly to account for a transit reduction for planning area R-1, R-2, and R-3, which will be within one-fourth mile of transit service. The transit reduction decreases average daily vehicle trips by 2.8% and AM / PM peak hour trips by 2.6%.

Marron Road will extend into the site from the east, and Haymar Drive will also be extended into the site from the east.

Two roadway network alternatives are evaluated in this report.

Alternative 1 – This street network assumes all roadways that are included in the City of Carlsbad and City of Oceanside General Plan Circulation Plans, including the Rancho Del Oro Road interchange. This street network assumes the extension of Marron Road from the existing east end at the Quarry Creek Shopping Center property line, to the existing west end approximately 1,000 feet east of El Camino Real, all within the City of Carlsbad, and through a designated open space area.

Alternative 2 – This street network assumes the Rancho Del Oro Road interchange at SR-78 is constructed, but the Marron Road extension is not included, nor is the Rancho Del Oro Road extension to Marron Road.

The SANDAG Series 11 Combined North County Model was used to determine Buildout average daily traffic volumes for each street network and are included in the following evaluation of project traffic impacts.

The Quarry Creek site is identified by SANDAG as a Smart Growth Community Center on the Smart Growth Concept Map for the San Diego Region. The project site is located in close proximity to other uses, including retail, employment and educational uses. In addition, the site is served by transit and the project proposes a park and ride lot on the north side of Haymar Drive just west of College Boulevard. The mixed use environment of the area, the availability of transit services and park and ride facilities and the walkable nature of the planned development will reduce traffic generation from the site by promoting alternative forms of transportation (walking, biking and transit) and by facilitating multiple destinations in a single vehicle trip. While it is realistic to expect some reductions in trips, the analysis in this report does not include any mixed use credits and therefore represents a worst-case scenario in terms of vehicular trip generation from the proposed project.

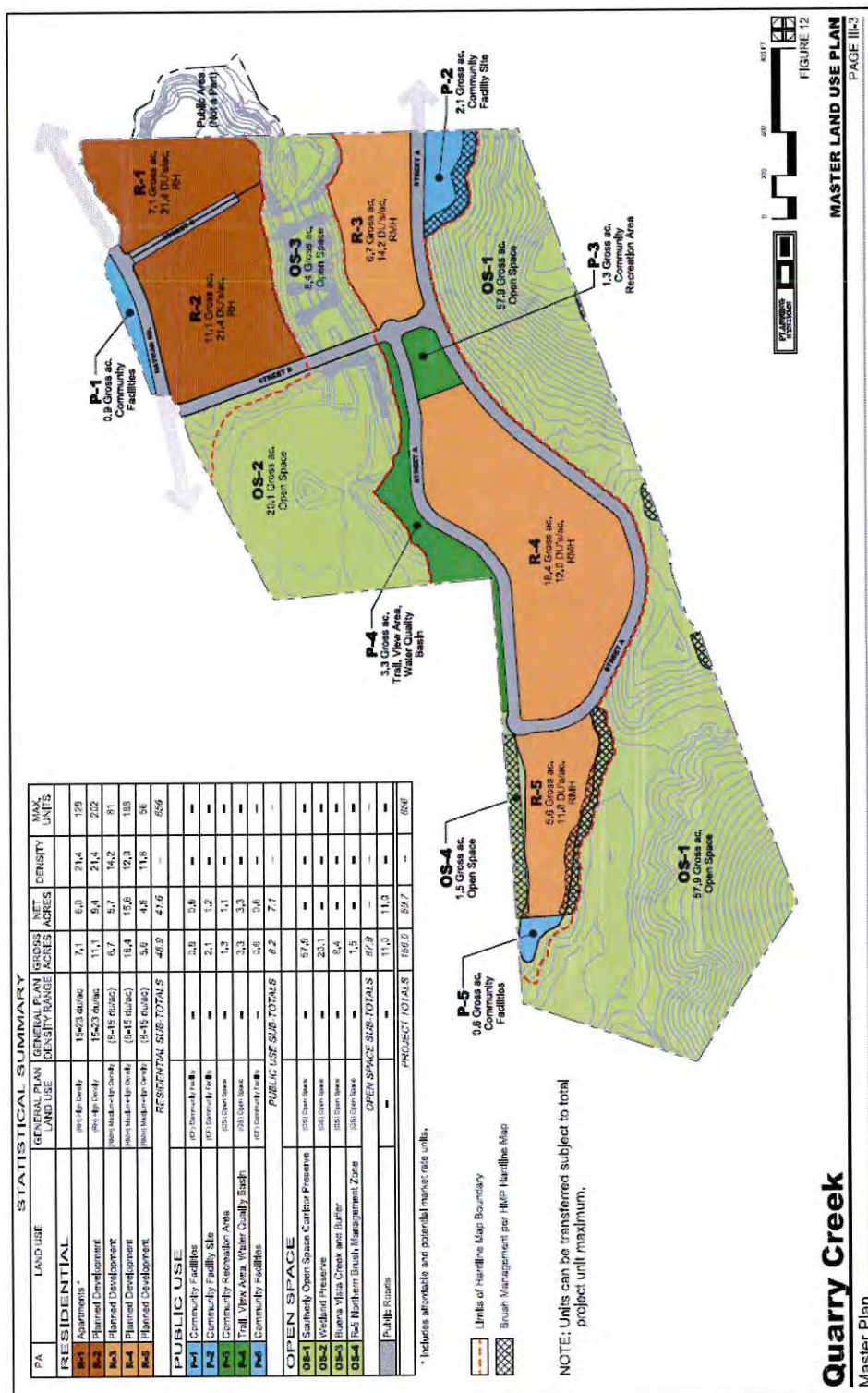


FIGURE 4-1
Quarry Creek Master Plan Site Plan

TABLE 4-1

Project Trip Generation

PLANNING AREA	AMOUNT	TRIP RATE*	ADT	AM PEAK HOUR					PM PEAK HOUR				
				%*	#	I / O	IN	OUT	%*	#	I / O	IN	OUT
R-1	99 DU	6 / DU	594	8	48	2 : 8	10	38	9	53	7 : 3	37	16
R-1, R-2	232 DU	8 / DU	1,856	8	148	2 : 8	30	118	10	186	7 : 3	130	56
R-3	81 DU	8 / DU	648	8	52	2 : 8	10	42	10	65	7 : 3	46	19
R-4 (East)	125 DU	8 / DU	1,000	8	80	2 : 8	16	64	10	100	7 : 3	70	30
R-4 (West)	63 DU	10 / DU	630	8	50	3 : 7	15	35	10	63	7 : 3	44	19
R-5	56 DU	10 / .DU	560	8	45	3 : 7	13	32	10	56	7 : 3	39	17
Community Facilities	1.5 AC.	100 / AC.**	150	17	26	5 : 5	13	13	18	28	5 : 5	14	14
Park and Ride	28 Spaces	5 / Space	140	14	20	7 : 3	14	6	15	21	3 : 7	6	15
Total			5,578		469		121	348		572		386	186

*Source: SANDAG Brief Guide Vehicular Traffic Generation Rates for the San Diego Region, April 2002.

**Note: Trip rate adjusted to account for possible 30 child day-care facility (5 trips / child x 30 = 150 ADT).

I / O = Inbound / Outbound ratio.

Trip Generation Adjustments

	ADT	AM PEAK HOUR				PM PEAK HOUR			
		#		IN	OUT	#		IN	OUT
Total Gross Trip Generation	5,578	469		121	348	572		386	186
1 -5% Transit Reduction: R-1, R-2, R-3 only.	-155	-12		-2	-10	-15		-11	-4
Net External Trips	5,423	457		119	338	557		375	182
Percentage of Reduction	2.8%	2.6%		1.8%	2.8%	2.6%		2.8%	2.2%

Notes:

1 = SANDAG Generation Rate Table recommends a 5% trip reduction for land uses with transit center access or near transit stations accessible within one-fourth mile.

OCEANSIDE PARCEL (NOT A PART OF PROJECT)

LAND USE	AMOUNT	TRIP RATE*	ADT	AM PEAK HOUR					PM PEAK HOUR				
				%	#	I / O*	IN	OUT	%	#	I / O*	IN	OUT
Industrial	1.3 AC	90 / AC.	117	11	13	9 : 1	12	2	12	14	2 : 8	2	11

I / O = Inbound / Outbound ratio.

5.0 EXISTING PLUS PROJECT CONDITONS

5.1 PROJECT ONLY TRAFFIC VOLUMES

The Combined North County traffic model forecast for Alternative 4 was used to determine the project only vehicle trip directional distribution percentages, and are shown in **Figure 5-1**.

The project only average daily traffic volumes are shown in **Figure 5-2**.

The project only AM and PM peak hour traffic volumes at study area intersections are shown in **Figure 5-3**.

5.2 STREET SEGMENTS WITHIN OCEANSIDE

Project only average daily traffic volumes were added to existing traffic volumes and are shown in **Figure 5-4**.

The roadway segments within Oceanside with project traffic added to existing volumes are shown in **Table 5-1**.

Three segments in this table have possible project significant impacts:

- College Boulevard, between Vista Way and Plaza Drive, decreases from level of service “D” to “E”, and the change in volume to capacity ratio is greater than 0.02. Therefore the project has a significant direct impact to this segment.

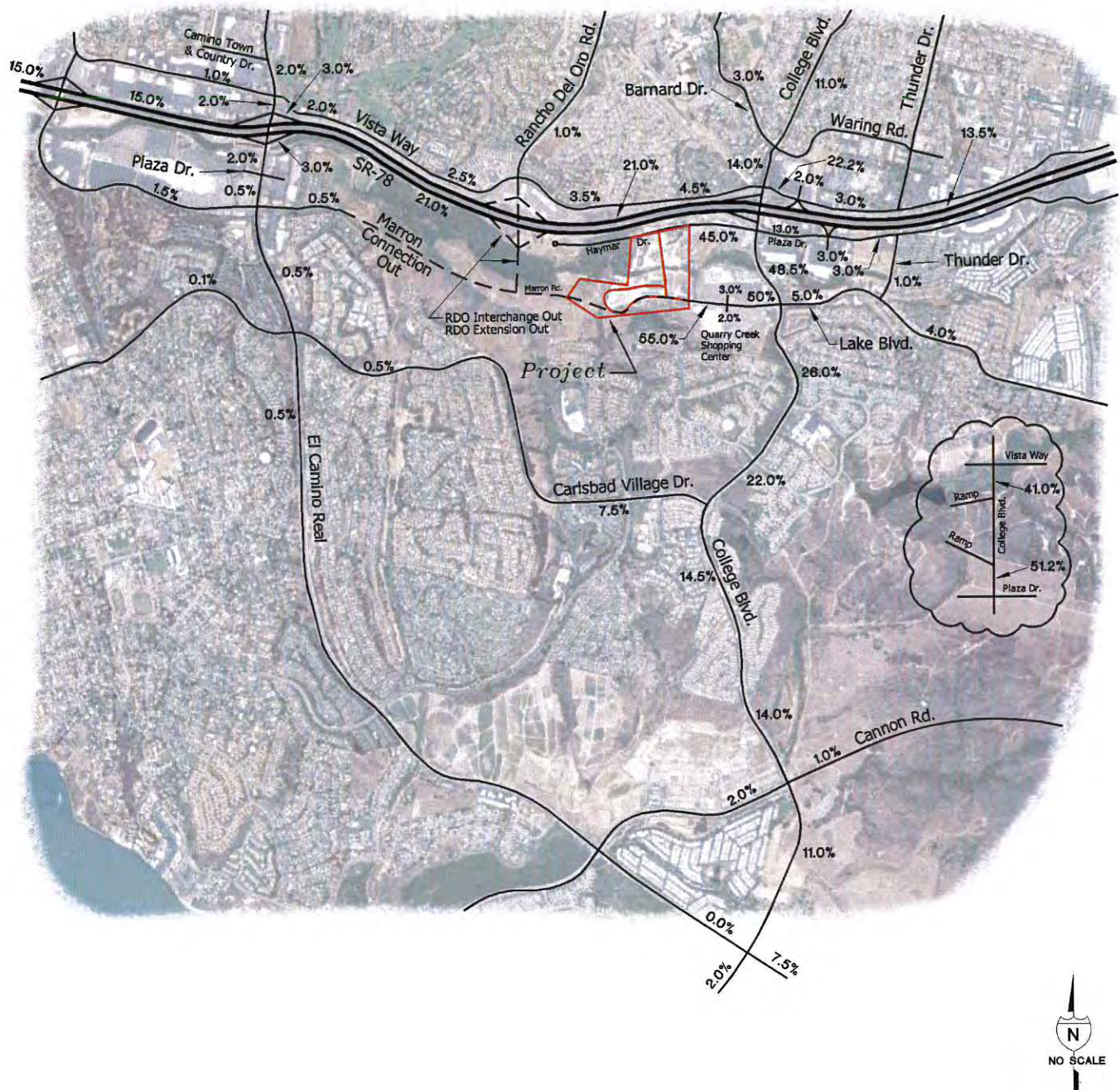
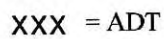


FIGURE 5-1
Project Trip Distribution Percentages
No RDO Interchange / No RDO Extension / No Marron Road



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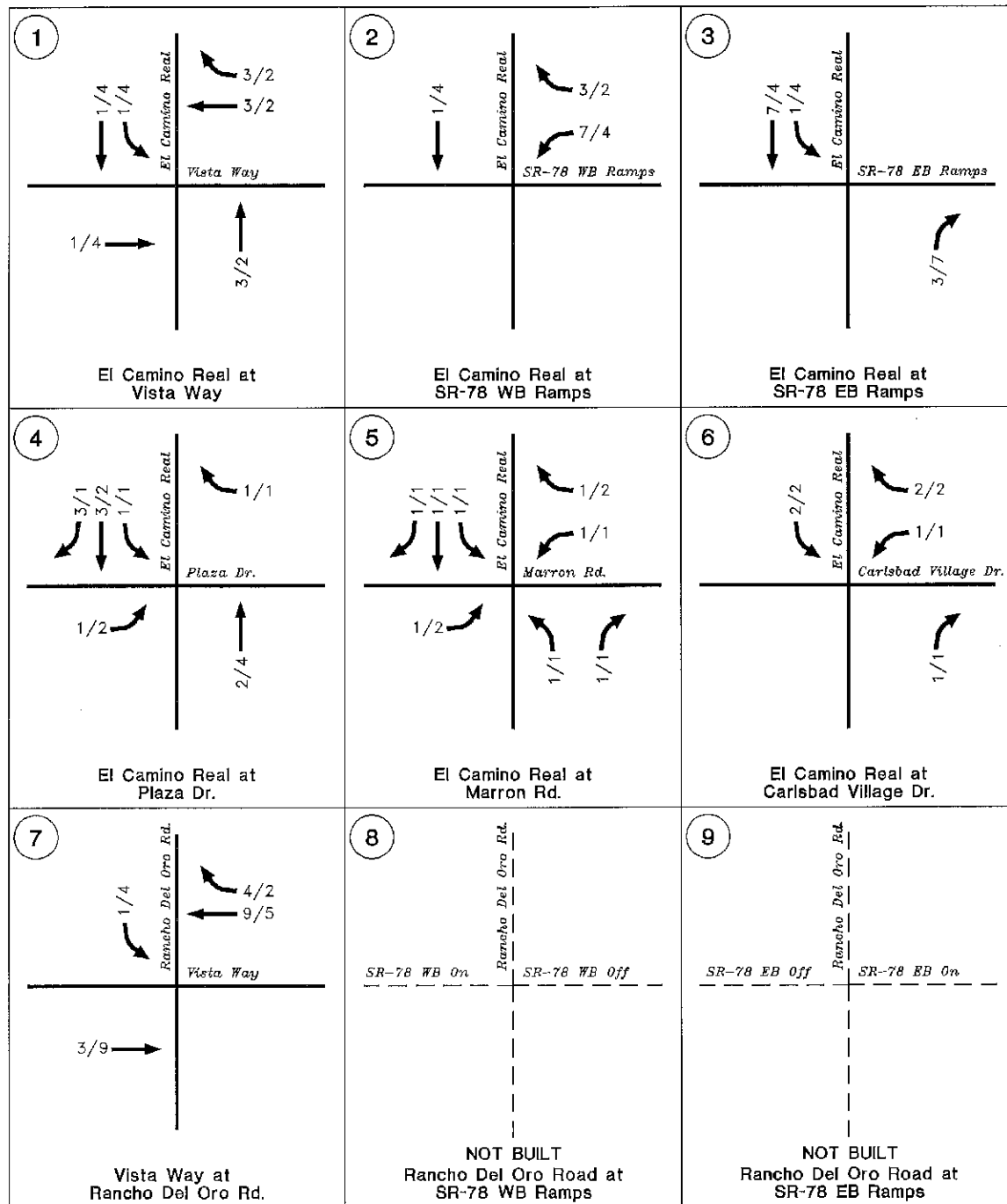


FIGURE 5-3
Project Only AM/PM Peak Hour Volumes
No RDO Interchange / No RDO Extension / No Marron Road



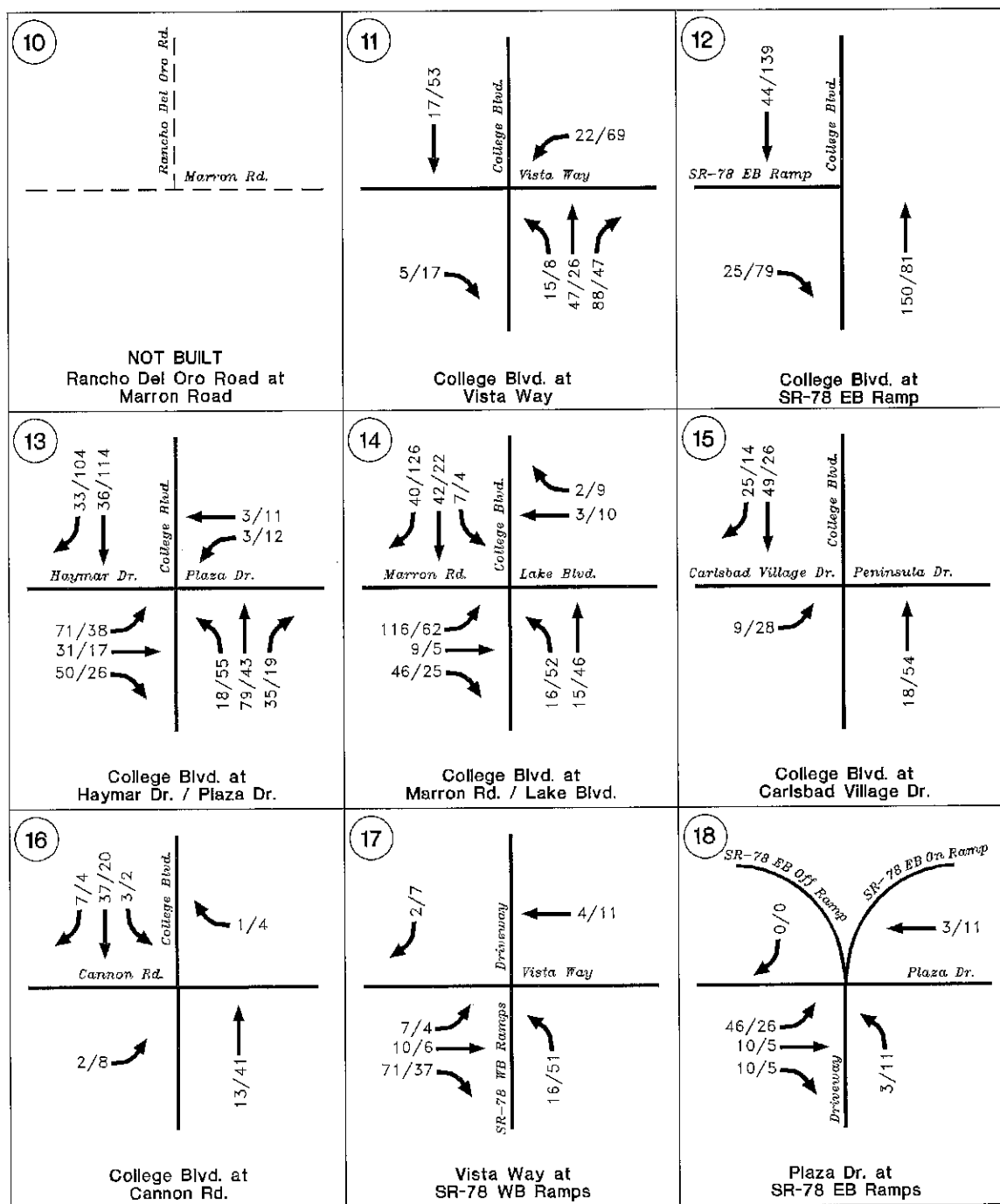


FIGURE 5-3

Project Only AM/PM Peak Hour Volumes
No RDO Interchange / No RDO Extension / No Marron Road



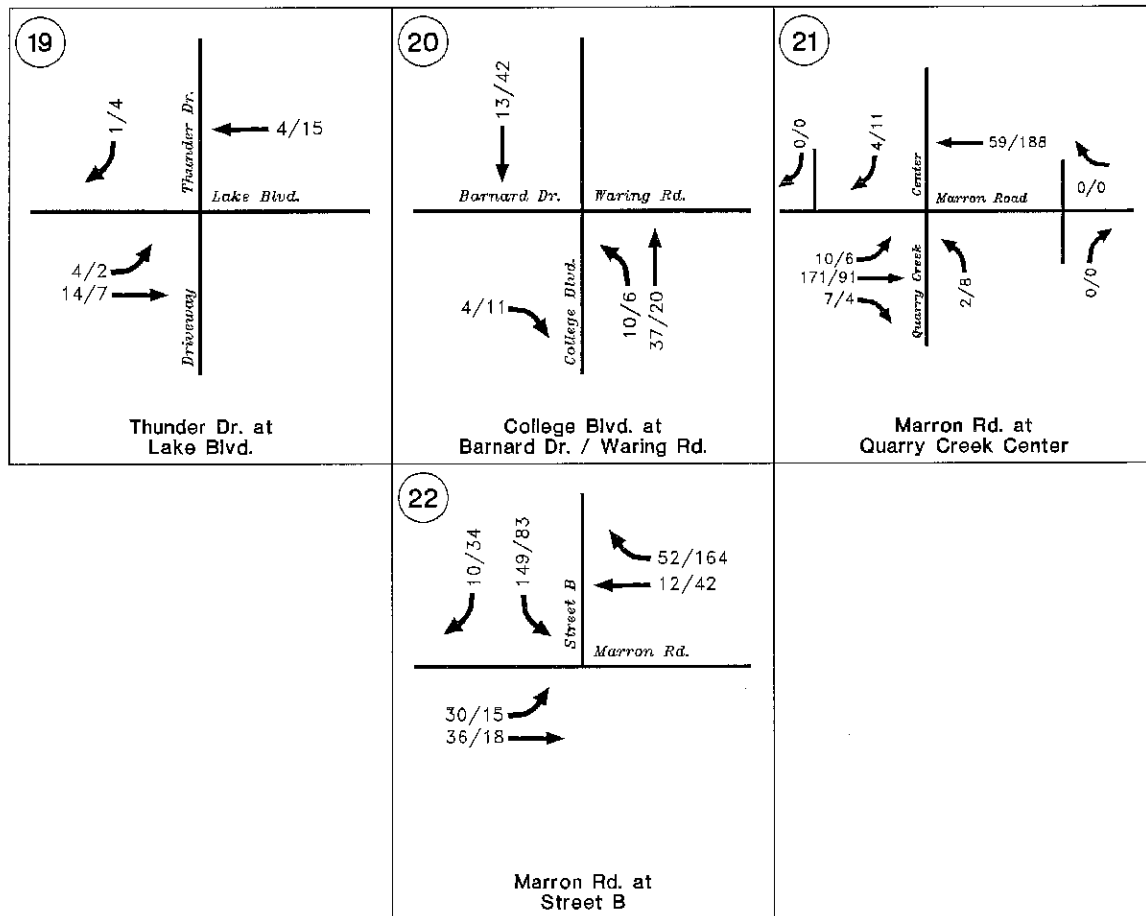
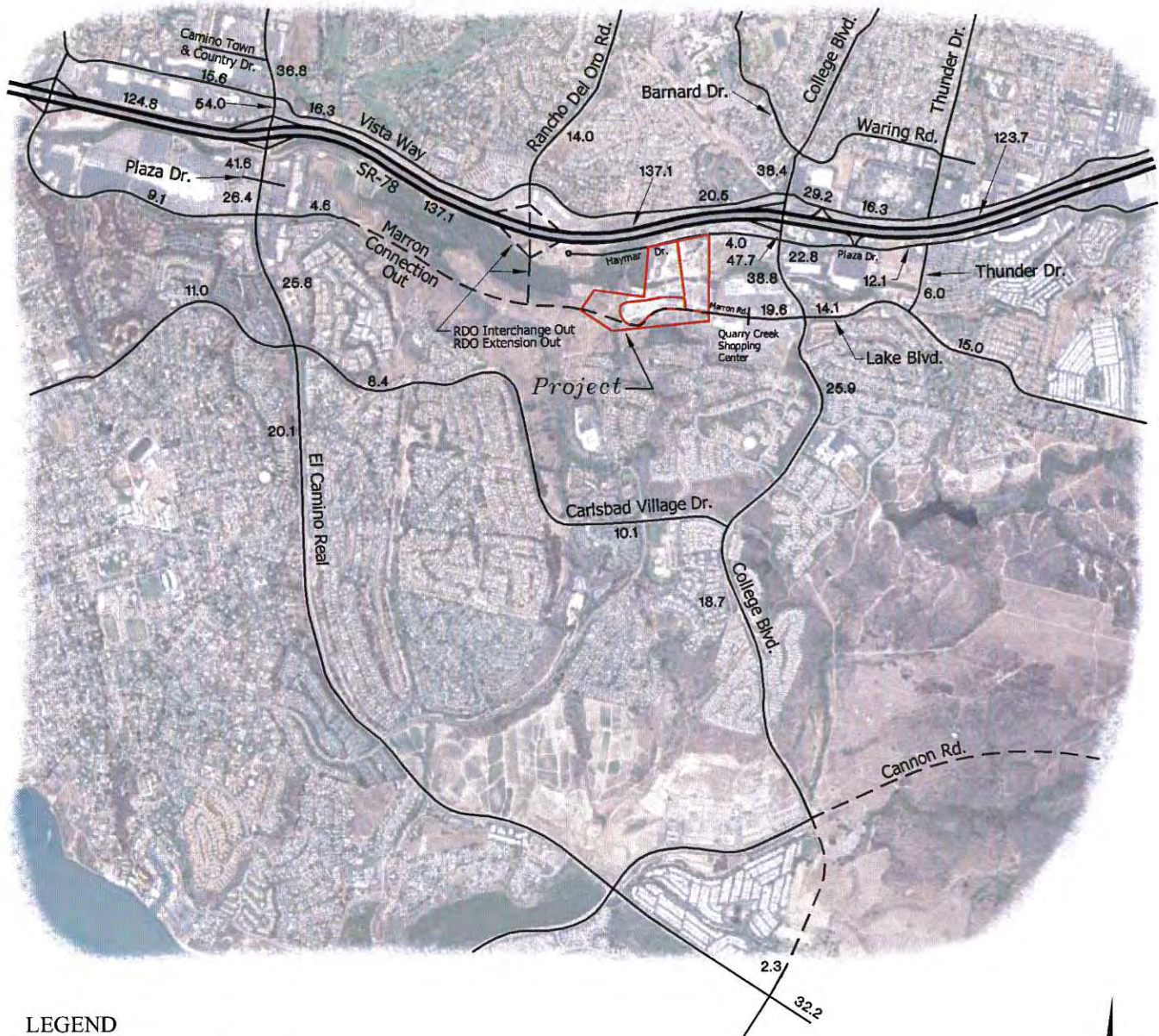


FIGURE 5-3
 Project Only AM/PM Peak Hour Volumes
 No RDO Interchange / No RDO Extension / No Marron Road





LEGEND

XX.X = ADT in Thousands



FIGURE 5-4
Existing + Project Average Daily Traffic Volumes

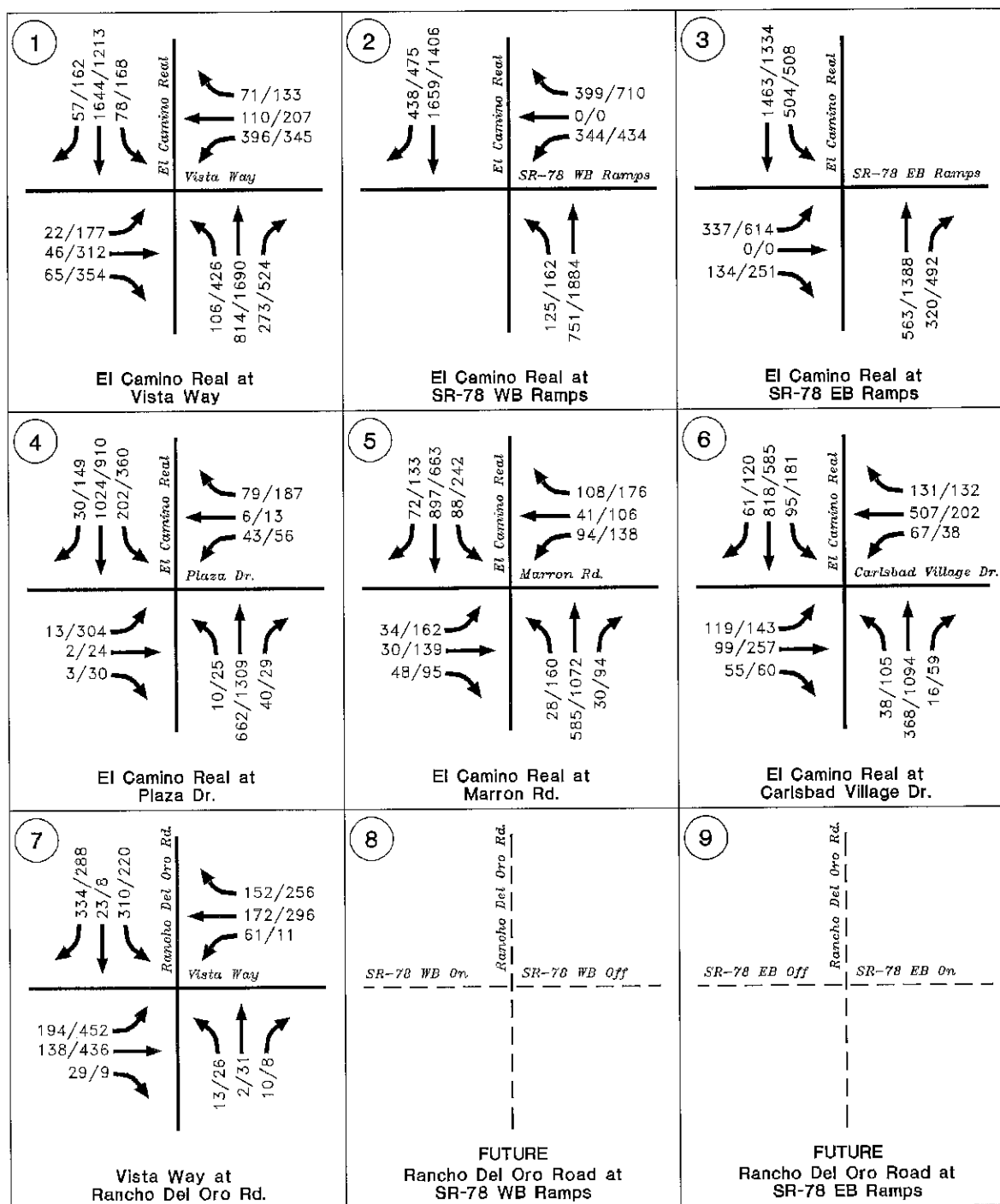


FIGURE 5-5
Existing + Project AM/PM Peak Hour Volumes

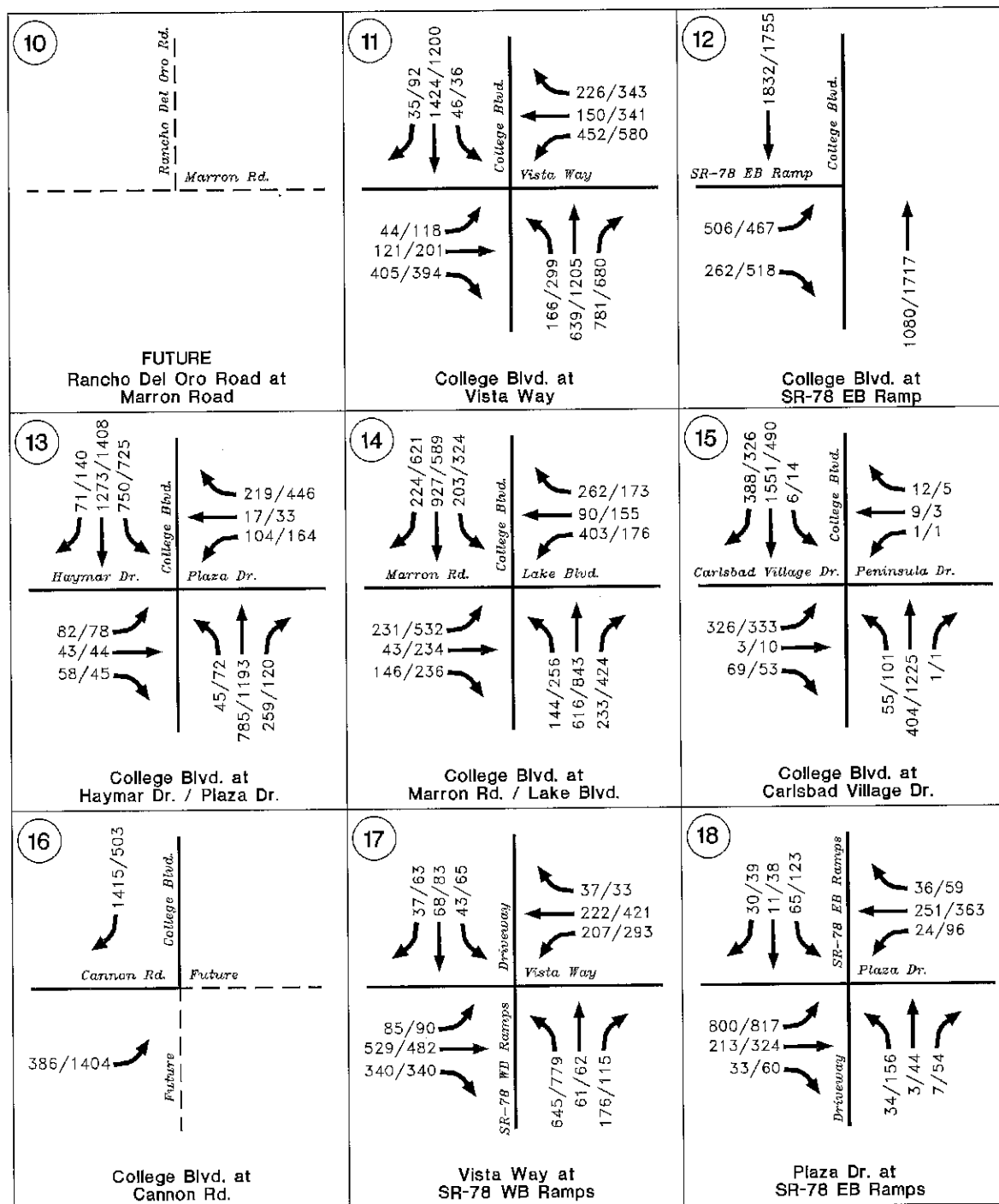


FIGURE 5-5
Existing + Project AM/PM Peak Hour Volumes

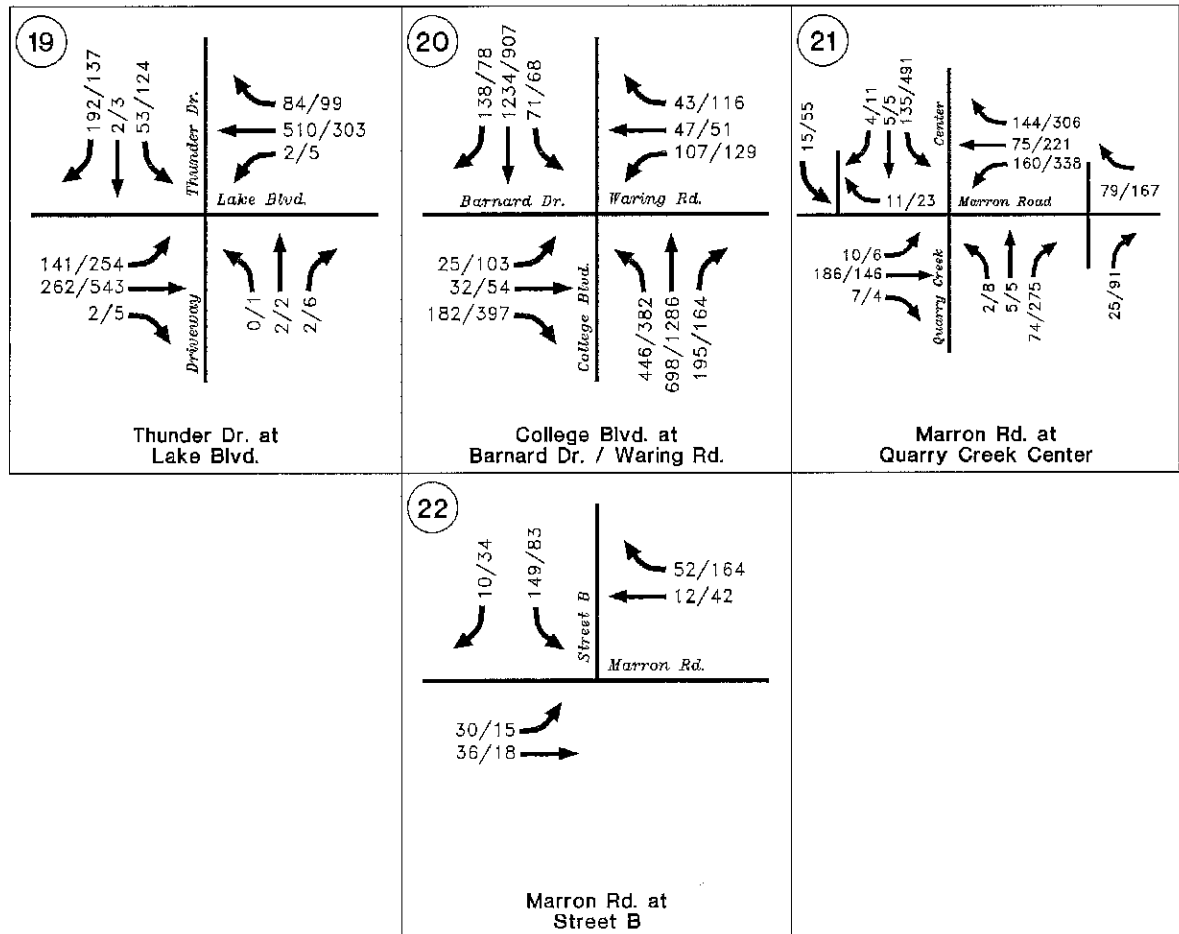


FIGURE 5-5
Existing + Project AM/PM Peak Hour Volumes



TABLE 5-1
Project Plus Existing Street Segment Levels of Service
Within Oceanside

			Project Plus Existing			
Segment	Current Classification	LOS E Capacity (1)	Volume	V / C (2)	ΔV/C (4)	LOS (3)
<u>El Camino Real</u>						
Via Las Rosas to Vista Way	6-PA	60,000	36,783	0.613	0.002	C
Vista Way to SR-78 WB Ramps	6-PA	60,000	53,967	0.899	0.001	D
<u>College Blvd.</u>						
Barnard Dr. to Vista Way	6-MA	50,000	33,331	0.767	0.016	C
Vista Way to Plaza Dr.	6-MA	50,000	47,662	0.953	0.055	E
Plaza Dr. to Marron Rd.	6-MA	50,000	38,842	0.777	0.053	C
Marron Rd. to South City Limit	4-MA	40,000	25,885	0.647	0.035	C
<u>Vista Way</u>						
Jefferson St. to El Camino Real	4-SCL	30,000	15,633	0.521	0.002	C
El Camino Real to Rancho Del Oro Rd.	4-SCL	30,000	15,446	0.515	0.004	C
Rancho Del Oro Rd. to College Blvd.	4-SCL	30,000	20,544	0.685	0.008	D
College Blvd. to SR-78 WB Ramps	4-SCL	30,000	29,206	0.974	0.041	E
SR-78 WB Ramps to Thunder Dr.	4-SCL	30,000	16,260	0.542	0.005	C
<u>Marron Rd. / Lake Blvd.</u>						
Driveway to College Blvd.	4-SCL	30,000	19,619	0.654	0.090	D
College Blvd. to Thunder Dr.	4-SCL	30,000	14,084	0.469	0.009	C
Thunder Dr. to Sundown Ln.	2-CL	15,000	15,017	1.001	0.014	F*
<u>Haymar Dr. / Plaza Dr.</u>						
Driveway to College Blvd.	2-C	10,000	3,950	0.395	0.244	A
College Blvd. to SR-78 EB Ramps	4-SCL	30,000	22,754	0.758	0.023	D
SR-78 EB Ramps to Thunder Dr.	2-CL	15,000	12,128	0.809	0.011	D
<u>Rancho Del Oro Rd.</u>						
Vista Way to Tournament Dr.	4-MA	40,000	13,954	0.349	0.001	A

NOTES:

1. Capacity of roadway at LOS E per City of Oceanside Master Transportation Plan, April 2012, Table 3-1.
 2. V / C = Volume to capacity at LOS E ratio; Δ V/C = Change in V/C.
 3. LOS = Level of service.
 4. Δ V/C = Change in V/C: A significant impact occurs at LOS "E" or "F" and the change in V/C ratio is greater than 0.02.
- *Not Significant since the change in V/C ratio is no more than 0.02.

Since physical improvements to add lanes are infeasible, the April 2012 Final EIR for the City of Oceanside Circulation Element Update recommends reclassification of this segment from a six-lane Major Arterial to a six-lane Prime Arterial. This reclassification would mitigate the project significant impact. However, Oceanside considers roadway reclassification infeasible, so that the Oceanside Update ultimately recommends the adoption of Overriding Conditions.

The changes or alterations are within the responsibility and jurisdiction of the City of Oceanside. The City of Oceanside does not appear to have adopted a program to construct such improvements and there does not appear to be a program to accept payments in lieu of construction. Due to the fact that the subject impacted segment is located outside the jurisdiction and regulatory authority of the City of Carlsbad, these impacts are considered significant and unmitigable. See CEQA Guidelines Section 15091 (a) (2).

- Vista Way, between College Boulevard and the SR-78 westbound ramps. This segment is at level of service “E” under existing conditions and with project traffic added. The project change in volume to capacity ratio is greater than 0.02, at 0.041, so this would be a significant impact.

The Oceanside Circulation Element Update recommends providing a westbound dedicated right-turn lane and lengthening the westbound left-turn lanes at the College Boulevard / Vista Way intersection by restriping the existing lanes. As stated in the Update, these improvements would improve peak hour operations but would not fully mitigate segment impacts, so that Overriding Considerations should be adopted.

The changes or alterations are within the responsibility and jurisdiction of the City of Oceanside.

The City of Oceanside does not appear to have adopted a program to construct such improvements and there does not appear to be a program to accept payments in lieu of construction. Due to the fact that the subject impacted segment is located outside the jurisdiction and regulatory authority of the City of Carlsbad, these impacts are considered significant and unmitigable. See CEQA Guidelines Section 15091 (a) (2).

- Lake Boulevard, between Thunder Drive and Sundown Lane, decreases from level of service “E” to “F”. However, the change in volume to capacity ratio is less than 0.02 so that this is not considered a significant impact to this segment. No project mitigation is required.

No other segments evaluated within the City of Oceanside would be significantly impacted by project traffic for the Project Plus Existing condition.

5.3 STREET SEGMENTS WITHIN CARLSBAD

Project only AM and PM peak hour traffic volumes were added to existing peak hour traffic volumes between study area intersections in Carlsbad and the results are displayed in **Table 5-2**.

As shown in this table, all street segments within Carlsbad would operate acceptably with project traffic added to existing peak hour volumes on roadway segments between intersections.

TABLE 5-2
Project Plus Existing Street Segment Levels of Service
Within Carlsbad

			AM PEAK HOUR			PM PEAK HOUR		
Segment	D	Lanes	Peak Hour Volume	V / C (1)	LOS	Peak Hour Volume	V / C (1)	LOS
<u>El Camino Real</u>								
SR-78 EB Ramps - Plaza Dr.	NB	3	884	0.16	A	1,881	0.35	A
	SB	3	1,716	0.32	A	1,584	0.29	A
Plaza Dr. - Marron Rd.	NB	3	710	0.13	A	1,361	0.25	A
	SB	3	1,068	0.20	A	1,037	0.19	A
Marron Rd. - Carlsbad Village Dr.	NB	3	643	0.12	A	1,326	0.25	A
	SB	3	1,039	0.19	A	896	0.17	A
Carlsbad Village Dr. - Chestnut Ave.	NB	3	422	0.08	A	1,257	0.23	A
	SB	3	941	0.17	A	685	0.13	A
<u>College Blvd.</u>								
Lake Blvd. - Carlsbad Village Dr.	NB	2	994	0.28	A	1,585	0.44	A
	SB	2	1,971	0.55	A	1,012	0.28	A
Carlsbad Village Dr. - Cannon Rd.	NB	2	461	0.13	A	1,419	0.39	A
	SB	2	1,629	0.45	A	716	0.2	A
<u>Marron Rd.</u>								
Monroe Ave. - El Camino Real	EB	2	111	0.03	A	393	0.11	A
	WB	2	140	0.04	A	399	0.11	A
El Camino Real - East End	EB	2	148	0.04	A	455	0.13	A
	WB	2	243	0.07	A	420	0.12	A
<u>Carlsbad Village Dr.</u>								
El Camino Real - Avenida De Anita	EB	2	210	0.06	A	496	0.14	A
	WB	2	705	0.20	A	372	0.11	A
Tamarack Ave. - College Blvd.	EB	2	399	0.11	A	399	0.11	A
	WB	2	456	0.13	A	433	0.12	A

D = Direction

(1) = Based on 1,800 vehicles per lane per hour.

V / C = Volume divided by capacity

Source: Highest Approach Volumes at Intersections.

5.4 INTERSECTIONS

Project peak hour traffic volumes were added to existing turning movement volumes at study area intersections and peak hour levels of service were calculated.

Table 5-3 shows the results of the intersection level of service evaluation. Also shown in this table are existing levels of service and delay for comparison. The Carlsbad intersections were evaluated using the ICU method so that intersection capacity utilization percentages are shown for those locations.

A significant impact would occur at the Carlsbad locations if the level of service decreases to “E” or “F”. Within Oceanside, a significant impact would occur if the intersection is at level of service “E” or “F”, and the increase in delay resulting from the project is more than 2.0 seconds.

As shown in this table, the intersections within Carlsbad maintain an acceptable level of service (i.e. LOS D or better) and therefore there are no significant project impacts at those locations and no project mitigation is needed.

Also shown, the intersections within Oceanside are expected to operate acceptably with project peak hour traffic added to existing peak hour volumes, and therefore there are no significant project impacts at those locations in Oceanside and no project mitigation is needed.

Appendix B includes Project Plus Existing intersection levels of service worksheets.

TABLE 5-3
Project Plus Existing Intersection Levels of Service

Number	Intersection	Existing				Project Plus Existing							
		AM Peak Hour		PM Peak Hour		AM Peak Hour				PM Peak Hour			
		D	LOS	D	LOS	D	LOS	Δ D	S ?	D	LOS	Δ D	S ?
1 OS	El Camino Real / Vista Way	33.5	C	49.0	D	33.6	C	0.1	N	49.5	D	0.5	N
2 OS	El Camino Real / SR-78 WB Ramps	21.4	C	26.7	C	21.4	C	0.0	N	26.8	C	0.1	N
3 OS	El Camino Real / SR-78 EB Ramps	16.7	B	36.3	D	16.7	B	0.0	N	36.3	C	0	N
4 CB	El Camino Real / Plaza Dr. (1)	0.34	A	0.65	B	0.35	A	0.01	N	0.65	B	0.00	N
5 CB	El Camino Real / Marron Rd. (1)	0.34	A	0.52	B	0.34	A	0.00	N	0.52	A	0.00	N
6 CB	El Camino Real / Carlsbad Village Dr. (1)	0.45	A	0.55	A	0.45	A	0.00	N	0.55	A	0.00	N
7 OS	Vista Way / Rancho Del Oro Rd.	35.7	D	42.8	D	35.7	D	0.00	N	43.4	D	0.6	N
8 OS	Rancho Del Oro Rd. / SR-78 WB Ramps	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
9 OS	Rancho Del Oro Rd. / SR-78 EB Ramps	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10 CB	Marron Rd. / Rancho Del Oro Rd.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
11 OS	College Blvd. / Vista Way	34.7	C	40.3	D	36.6	D	1.9	N	48.9	D	3.6	N
12 OS	College Blvd. / SR-78 EB Off Ramp	8.2	A	8.7	A	8.2	A	0.0	N	11.3	B	3.6	N
13 OS	College Blvd. / Plaza Dr.	17.7	B	30.7	C	19.7	B	2.0	N	31.8	C	1.1	N
14 OS	College Blvd. / Marron Rd. / Lake Blvd.	27.7	C	29.6	C	30.3	C	2.6	N	31.5	C	1.9	N
15 CB	College Blvd. / Carlsbad Village Dr. (1)	0.69	B	0.48	A	0.71	C	0.02	N	0.51	A	0.03	N
16 CB	College Blvd. / Cannon Rd. (1)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
17 OS	Vista Way / SR-78 WB Ramps	29.8	C	32.8	C	29.6	C	0.0	N	33.7	C	0.9	N
18 OS	Plaza Dr. / SR-78 EB Ramps	14.8	B	26.7	C	14.5	B	0.0	N	27.0	C	0.3	N
19 OS	Lake Blvd. / Thunder Dr.	29.8	C	32.1	C	30.0	C	0.2	N	32.4	C	0.3	N
20 OS	College Blvd. / Waring Rd.	26.7	C	30.4	C	27.3	C	0.6	N	30.6	C	0.2	N
21 OS	Marron Rd. / Quarry Creek Ctr.	23.5	C	32.4	C	22.2	C	0.0	N	33.6	C	1.2	N
22 OS	Marron Rd. / Street B	N/A	N/A	N/A	N/A	(2)	A	(2)	N	(2)	A	(2)	N

Notes:

(1) ICU used in Carlsbad for Existing and Existing Plus Project Conditions.

N/A = Not Built

(2) Roundabout: Delay is not applicable; LOS is based on V/C; AM and PM V/C is LOS A.

City:

OS = Oceanside

CB = Carlsbad

D = Control Delay

LOS = Level of Service

Δ D = Change in Delay

S ? = Significant Impact: Yes (Y) or No (N).

LOS	ICU	Seconds Delay
A	0.00 - 0.60	0.00 - 10.0
B	0.61 - 0.70	10.1 - 20.0
C	0.71 - 0.80	20.1 - 35.0
D	0.81 - 0.90	35.1 - 55.0
E	0.91 - 1.00	55.1 - 80.0
F	Over 1.00	Over 80.0

5.5 STATE ROUTE 78 MAINLINES

The project traffic volumes added to existing SR-78 average daily traffic volumes are included in **Table 5-4**. This table shows existing and project plus existing freeway volumes. This table also compares levels of service and volume to capacity (V/C) ratios, and indicates if the project has or has not a significant freeway impact. At levels of service “E” or “F” an increase in V/C ratio of no more than 0.01 is acceptable. As shown in this table, segments at level of service “E” have V/C increases of less than 0.01 so that the project has less than significant impacts to SR-78 mainlines.

TABLE 5-4

Project Plus Existing Freeway Segment Levels of Service

EXISTING									
Segment	Lanes (1-Way)	Cap.	ADT (1)	Peak Hour % (1)	Direction Split (1)	Truck Factor (2)	Peak Volume	V/C	LOS (3)
State Route 78									
I-5 to Jefferson St.	3+AUX	8,850	133,000	8	6 : 4	0.95	6,720	0.759	C
Jefferson St. to El Camino Real	3+AUX	8,850	123,000	8	6 : 4	0.95	6,215	0.702	C
El Camino Real to Rancho Del Oro Rd.	3	7,050	135,000	8	6 : 4	0.95	6,821	0.968	E
Rancho Del Oro Rd. to College Blvd.	3	7,050	135,000	8	6 : 4	0.95	6,821	0.968	E
College Blvd. to Emerald Dr.	3	7,050	123,000	8	6 : 4	0.95	6,215	0.882	D

PROJECT PLUS EXISTING									
Segment	Lanes (1-Way)	Cap.	ADT	Peak Hour % (1)	Direction Split (1)	Truck Factor (2)	Peak Volume	V/C	LOS (3)
State Route 78									
I-5 to Jefferson St.	3+AUX	8,850	133,910	8	6 : 4	0.95	6,766	0.765	C
Jefferson St. to El Camino Real	3+AUX	8,850	123,910	8	6 : 4	0.95	6,261	0.707	C
El Camino Real to Rancho Del Oro Rd.	3	7,050	136,153	8	6 : 4	0.95	6,879	0.976	E
Rancho Del Oro Rd. to College Blvd.	3	7,050	136,153	8	6 : 4	0.95	6,879	0.976	E
College Blvd. to Emerald Dr.	3	7,050	123,728	8	6 : 4	0.95	6,252	0.887	D

LEVEL OF SERVICE AND V/C COMPARISON						
Segment	V/C With	LOS	V/C Without Project	LOS	Change in V/C	S?
State Route 78						
I-5 to Jefferson St.	0.765	C	0.759	C	0.006	N
Jefferson St. to El Camino Real	0.707	C	0.702	C	0.005	N
El Camino Real to Rancho Del Oro Rd.	0.976	E	0.968	E	0.008	N
Rancho Del Oro Rd. to College Blvd.	0.976	E	0.968	E	0.008	N
College Blvd. to Emerald Dr.	0.887	D	0.882	D	0.005	N

Legend:

Cap. = Capacity
Mainlane Cap. @ 2,350 VPHPL
Auxillary Lane Cap. @ 1,800 VPHPL
ADT= Average Daily Traffic
V/C= Volume to Capacity Ratio
LOS= Level of Service
Direction Split = % of Peak Hour in Peak Direction
Truck Factor = Represents Capacity Reduction for Heavy Vehicles

Notes:

(1) Source: Caltrans 2010 Traffic Volumes.
(2) Highway Capacity Manual (2000) EQN. (3-2); assume 5% trucks plus RV's.
(3) Caltrans District 11 LOS Estimation Procedures, See Table 2-3
S? = Significant Impact: Yes (Y), No (N).
(At LOS E or F, an increase in V/C of no more than 0.01 is acceptable).

6.0 NEAR TERM WITHOUT PROJECT

The cumulative condition impacts from other approved and reasonably feasible pending projects that are expected to influence the study area are evaluated in this section.

Other projects in Oceanside and Carlsbad considered to be adding traffic before or at approximately the same time as the Quarry Creek Master Plan are listed below:

- Within the City of Oceanside:
 - El Corazon Specific Plan (Phase 1A, 1D, 1E, and 1F; 7,960 ADT).
 - Tri-City Medical Office building (60,000 S.F.; 3,000 ADT).

- Within the City of Carlsbad:
 - Plaza Camino Real Westfield Shopping Center Revitalization Project (5,186 ADT from vacant leasable space; 1,240 ADT from new space).
 - Carlsbad High School (Phase I; 1,500 students; 1,950 ADT).
 - Robertson Ranch (1,162 D.U.; 10.0 AC.Commercial; 13 AC. Park; 66.0 KSF Office; 17,800 ADT).
 - Holly Springs Catarini (239 D.U.; 2,250 ADT)
 - Dos Colinas (309 retirement D.U.; 29 D.U. affordable housing; 1,340 ADT).
 - Palomar Airport Road Commons (16.6 acre Community Shopping Center; 12,370 ADT).
 - La Costa Town Square (284,000 S.F. Community Shopping Center; 198 D.U.; 55,000 S.F. Office; 25,516 ADT).

Appendix B includes excerpts from other projects traffic reports showing each project trip generation and directional distribution of peak hour and daily traffic volumes.

Figure 6-1 shows the location of the other projects.

6.1 STREET SEGMENTS WITHIN OCEANSIDE

Figure 6-2 includes average daily traffic volumes to be added to the street network as a result of other projects.

Figure 6-3 shows existing plus other project's average daily traffic volumes.

Table 6-1 includes roadway segments within Oceanside with cumulative projects added. This table indicates that all segments evaluated within Oceanside would operate acceptably with cumulative projects added, except at the following segments:

- El Camino Real between Vista Way and SR-78 Westbound Ramps, at level of service "E".
- College Boulevard between Vista Way and Plaza Drive, at level of service "E";
- Vista Way between College Boulevard and the SR-78 Westbound Ramps, at level of service "F";
- Lake Boulevard between Thunder Drive and Sundown Lane, at level of service "F".

6.2 STREET SEGMENTS WITHIN CARLSBAD

Cumulative other project's AM and PM peak hour volumes at existing intersections are shown in **Figure 6-4**. These volumes were added to street segments within Carlsbad and street segment levels of service were calculated, as shown in **Table 6-2**. As indicated, all Carlsbad segments evaluated would operate acceptably with cumulative project's traffic added.

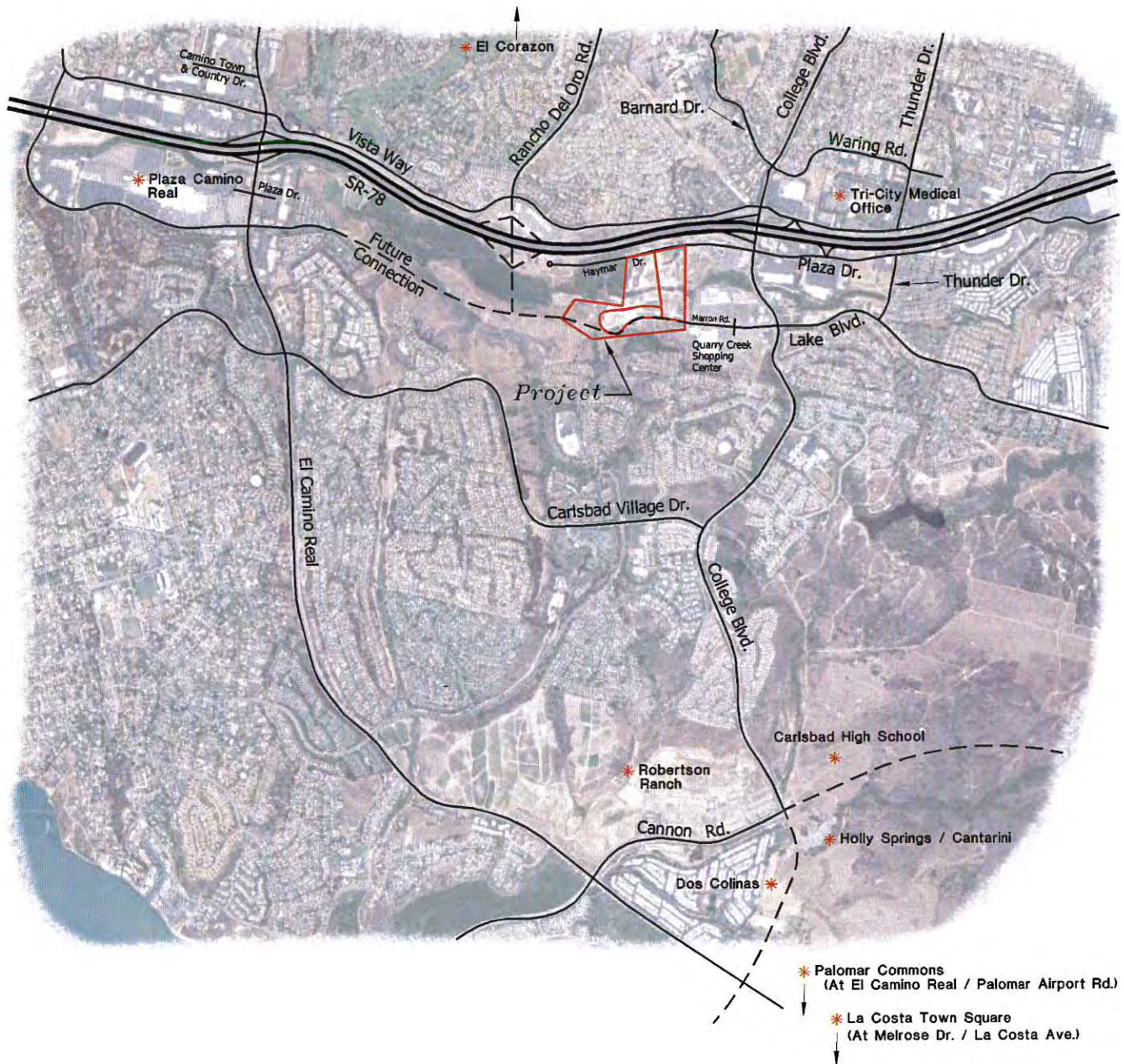


FIGURE 6-1
Other Approved Project Locations



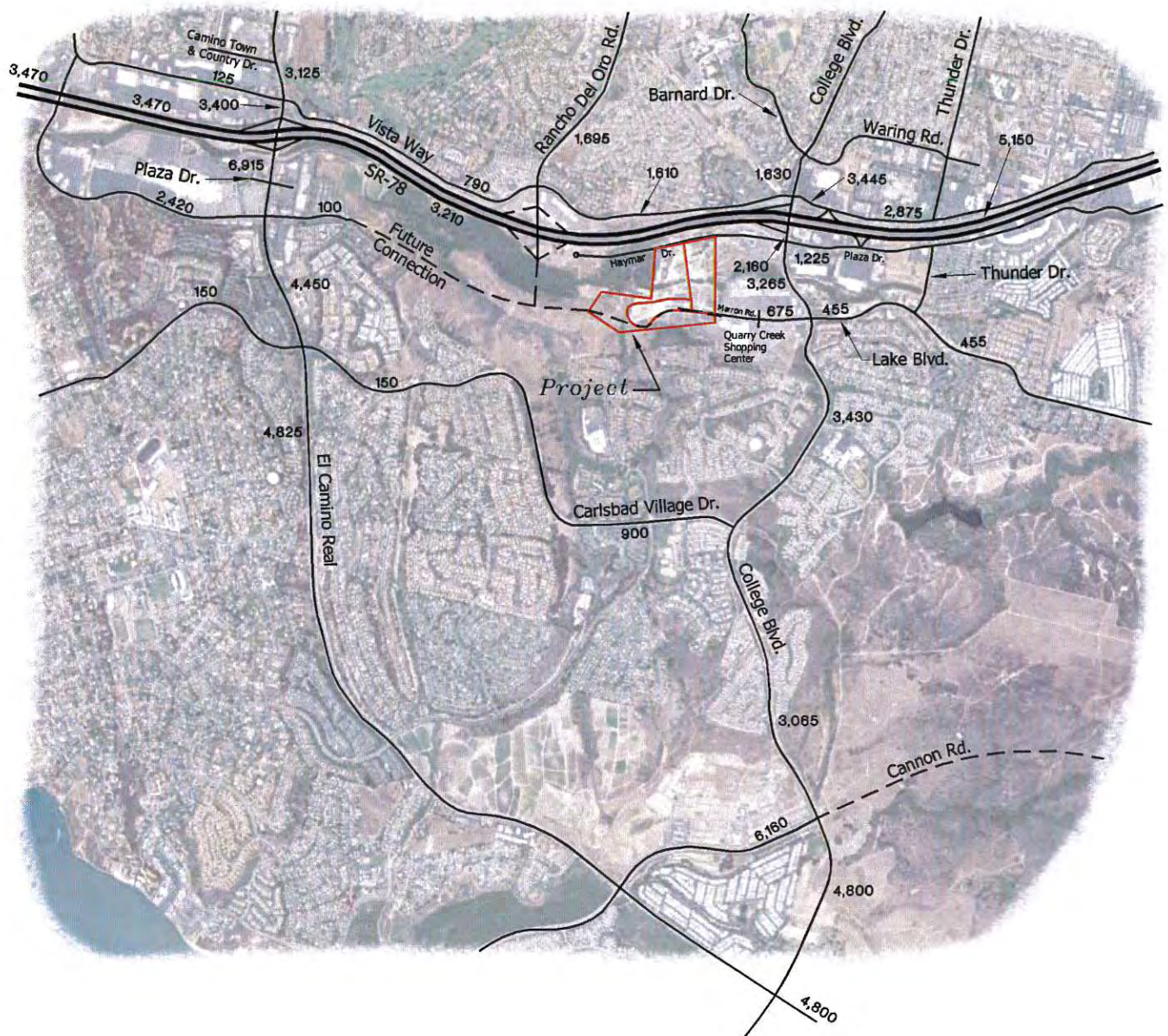


FIGURE 6-2
Other Approved Projects Average Daily Traffic





LEGEND

XX.X = ADT in Thousands



FIGURE 6-3
Near Term Without Project Average Daily Traffic

TABLE 6-1

Near Term Without Project Street Segment Levels of Service

Within Oceanside

Segment	Current Classification	LOS E Capacity (1)	Volume	V/C (2)	LOS (3)
<u>El Camino Real</u>					
Via Las Rosas to Vista Way	6-PA	60,000	39,800	0.663	C
Vista Way to SR-78 WB Ramps	6-PA	60,000	57,300	0.955	E
<u>College Blvd.</u>					
Barnard Dr. to Vista Way	6-MA	50,000	39,200	0.784	C
Vista Way to Plaza Dr.	6-MA	50,000	48,200	0.964	E
Plaza Dr. to Marron Rd.	6-MA	50,000	39,500	0.790	C
Marron Rd./ to South City Limit	4-MA	40,000	27,800	0.695	C
<u>Vista Way</u>					
Jefferson St. to El Camino Real	4-SCL	30,000	15,700	0.523	C
El Camino Real to Rancho Del Oro Rd.	4-SCL	30,000	22,900	0.763	D
Rancho Del Oro Rd. to College Blvd.	4-SCL	30,000	21,900	0.730	D
College Blvd. to SR-78 WB Ramps	4-SCL	30,000	31,500	1.050	F
SR-78 WB Ramps to Thunder Dr.	4-SCL	30,000	19,000	0.633	C
<u>Marron Rd. / Lake Blvd.</u>					
Driveway to College Blvd.	4-SCL	30,000	17,600	0.587	C
College Blvd. to Thunder Dr.	4-SCL	30,000	14,300	0.476	C
Thunder Dr. to Sundown Ln.	2-CL	15,000	15,300	1.020	F
<u>Haymar Dr. / Plaza Dr.</u>					
Driveway to College Blvd.	2-C	10,000	1,500	0.150	A
College Blvd. to SR-78 EB Ramps	4-SCL	30,000	23,400	0.780	D
SR-78 EB Ramps to Thunder Dr.	4-SCL	30,000	12,100	0.403	B
<u>Rancho Del Oro Rd.</u>					
Vista Way to Tournament Dr.	4-MA	40,000	15,600	0.390	B

Notes:

1. Capacity of roadway at LOS E per City of Oceanside Master Transportation Plan, April 2012, Table 3-1.
2. V/C = Volume to capacity at LOS E ratio.
3. LOS = Level of Service.

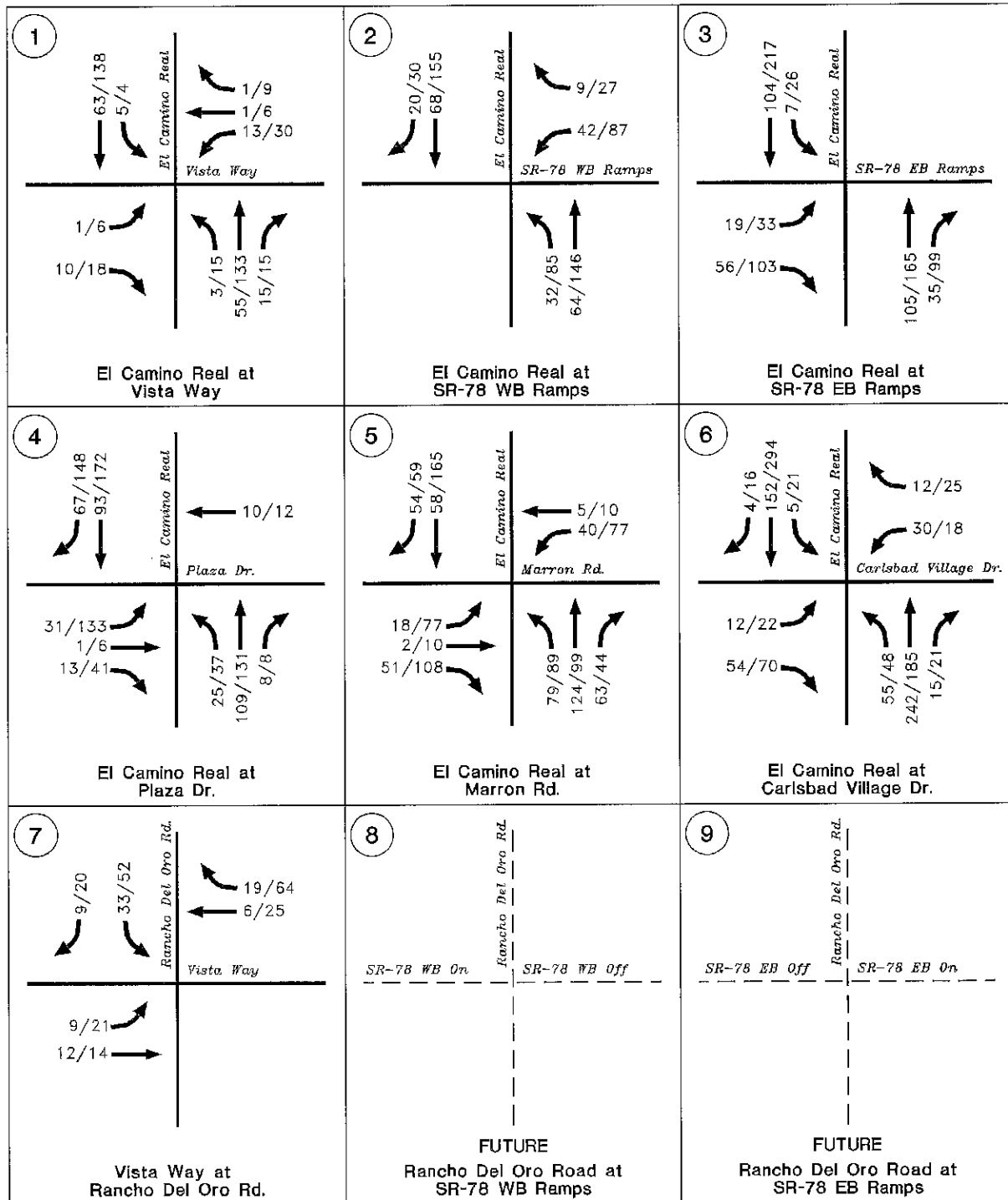
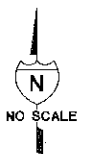


FIGURE 6-4
Other Projects Only AM/PM Peak Hour Volumes



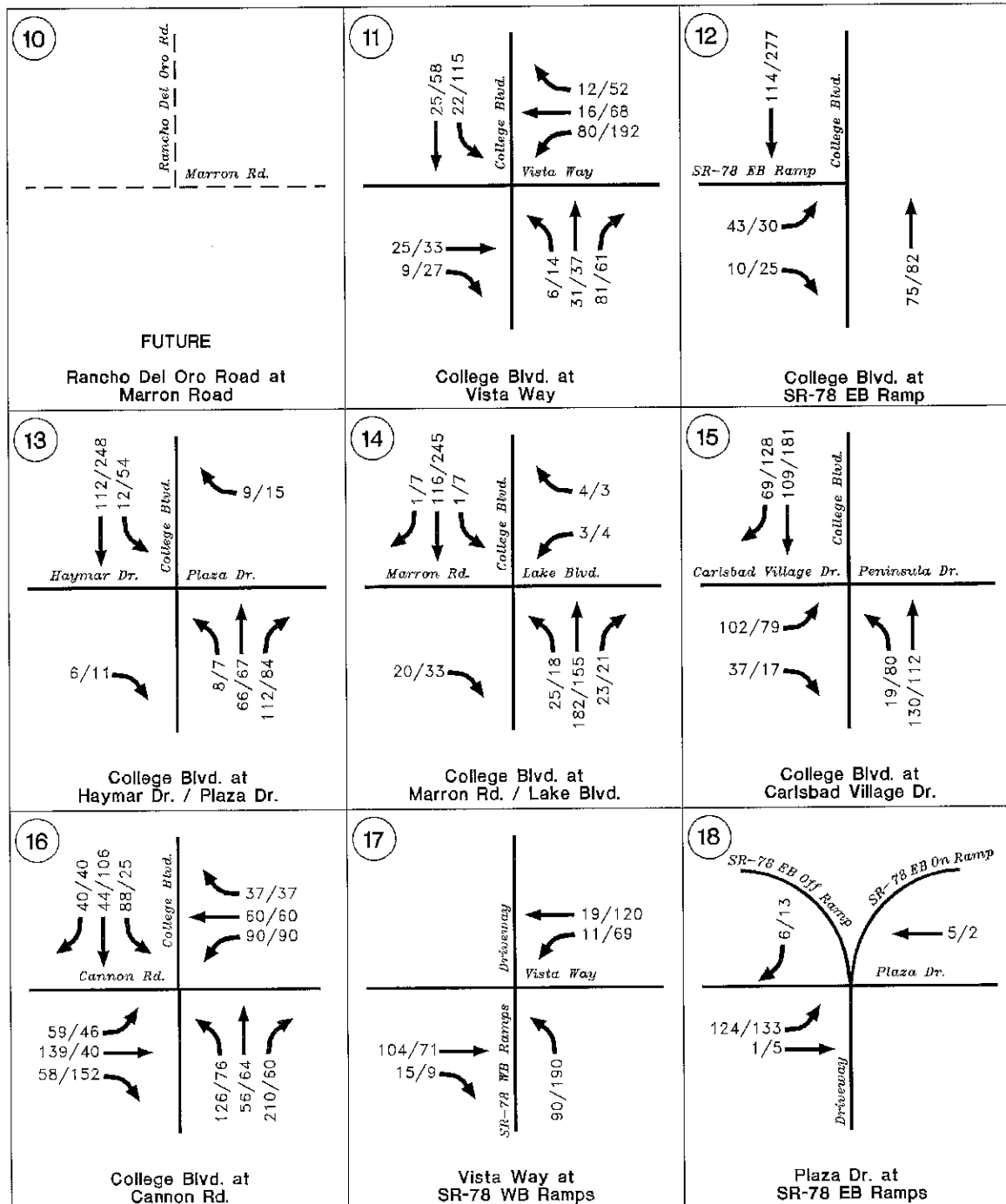


FIGURE 6-4
Other Projects Only AM/PM Peak Hour Volumes



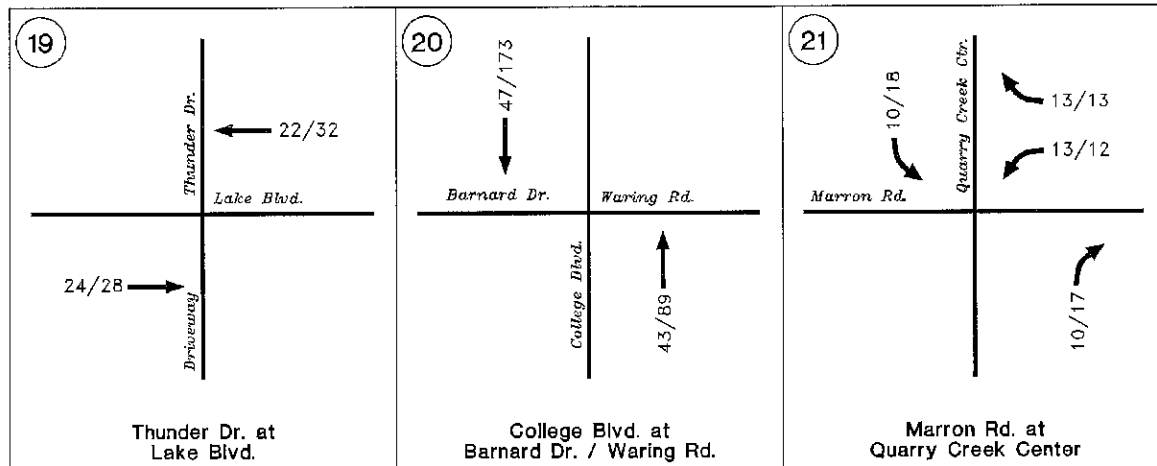


FIGURE 6-4
 Other Projects Only AM/PM Peak Hour Volumes



TABLE 6-2
Near Term Without Project Street Segment Levels of Service
Within Carlsbad

			AM PEAK HOUR			PM PEAK HOUR		
Segment	D	Lanes	Peak Hour Volume	V / C (1)	LOS	Peak Hour Volume	V / C (1)	LOS
<u>El Camino Real</u>								
SR-78 EB Ramps - Plaza Dr.	NB	3	1,020	0.19	A	2,137	0.40	A
	SB	3	1,750	0.32	A	1,901	0.35	A
Plaza Dr. - Marron Rd.	NB	3	867	0.16	A	1,582	0.29	A
	SB	3	1,171	0.22	A	1,259	0.23	A
Marron Rd. - Carlsbad Village Dr.	NB	3	907	0.17	A	1,599	0.30	A
	SB	3	1,185	0.22	A	1,241	0.23	A
Carlsbad Village Dr. - Chestnut Ave.	NB	3	733	0.14	A	1,510	0.28	A
	SB	3	1,175	0.22	A	1,064	0.20	A
<u>College Blvd.</u>								
Lake Blvd. - Carlsbad Village Dr.	NB	2	1,192	0.33	A	1,619	0.45	A
	SB	2	2,047	0.57	A	1,236	0.34	A
Carlsbad Village Dr. - Cannon Rd.	NB	2	591	0.16	A	1,499	0.42	A
	SB	2	1,718	0.48	A	716	0.20	A
<u>Marron Rd.</u>								
Monroe Ave. - El Camino Real	EB	2	181	0.05	A	586	0.16	A
	WB	2	277	0.08	A	555	0.15	A
El Camino Real - East End	EB	2	211	0.06	A	527	0.15	A
	WB	2	286	0.08	A	504	0.14	A
<u>Carlsbad Village Dr.</u>								
El Camino Real - Avenida De Anita	EB	2	227	0.06	A	535	0.15	A
	WB	2	744	0.21	A	412	0.11	A
Tamarack Ave. - College Blvd.	EB	2	528	0.15	A	464	0.13	A
	WB	2	515	0.14	A	624	0.17	A

D = Direction

(1) = Based on 1,800 vehicles per lane per hour.

V / C = Volume divided by capacity

Source: Highest Approach Volumes at Intersections.

V/C	LOS
0.00-0.60	A
0.61-0.70	B
0.71-0.80	C
0.81-0.90	D
0.91-1.00	E
Over 1.00	F

6.3 INTERSECTIONS

For this traffic condition the Highway Capacity Manual method of estimating intersection control delay and corresponding levels of service were used for intersections within Oceanside and Carlsbad.

Figure 6-5 shows AM and PM peak hour volumes at study area intersections with the cumulative projects' traffic added to existing volumes.

Figure 6-6 includes intersection lane configurations for Near-Term conditions.

There are five intersections within the City of Oceanside that have planned but mostly unfunded improvements for Near-Term conditions as a result of previous traffic studies. The City of Oceanside has requested these improvements be assumed for Near-Term and Buildout conditions:

- Intersection #1, El Camino Real / Vista Way: On El Camino Real, add a northbound to eastbound right-turn-only lane;
- Intersection #11, College Boulevard / Vista Way: On College Boulevard add a second northbound to eastbound right-turn-only lane (a condition of approval for the Tri-City Medical Office); on Vista Way add a westbound to northbound right-turn-only lane;
- Intersection #13, College Boulevard / Haymar Drive – Plaza Drive: on College Boulevard, add a northbound to eastbound right-turn-only lane;
- Intersection #14, College Boulevard / Marron Road – Lake Boulevard: on College Boulevard, add a second northbound to eastbound right-turn-only lane;

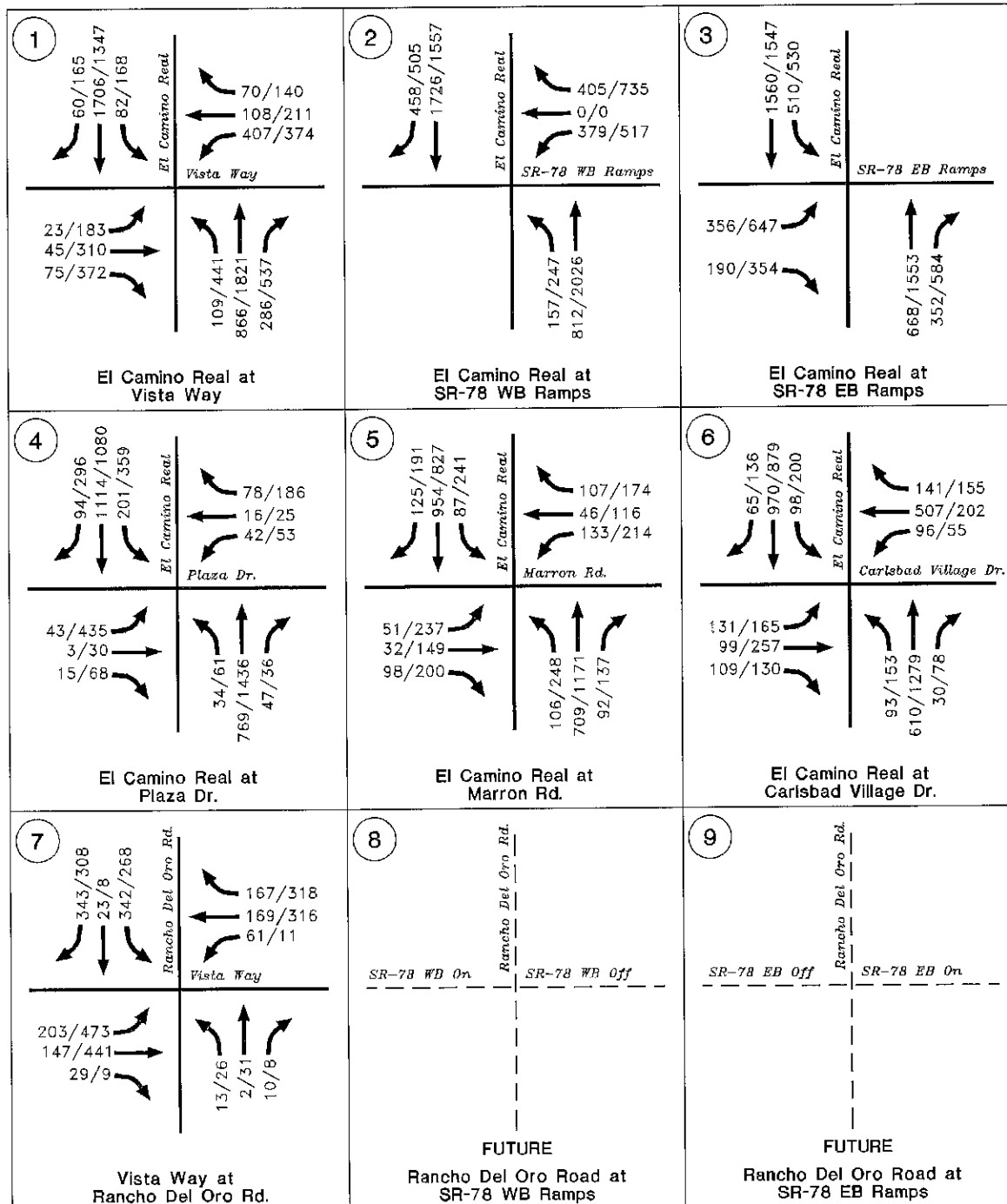


FIGURE 6-5
Existing + Other Projects AM/PM Peak Hour Volumes



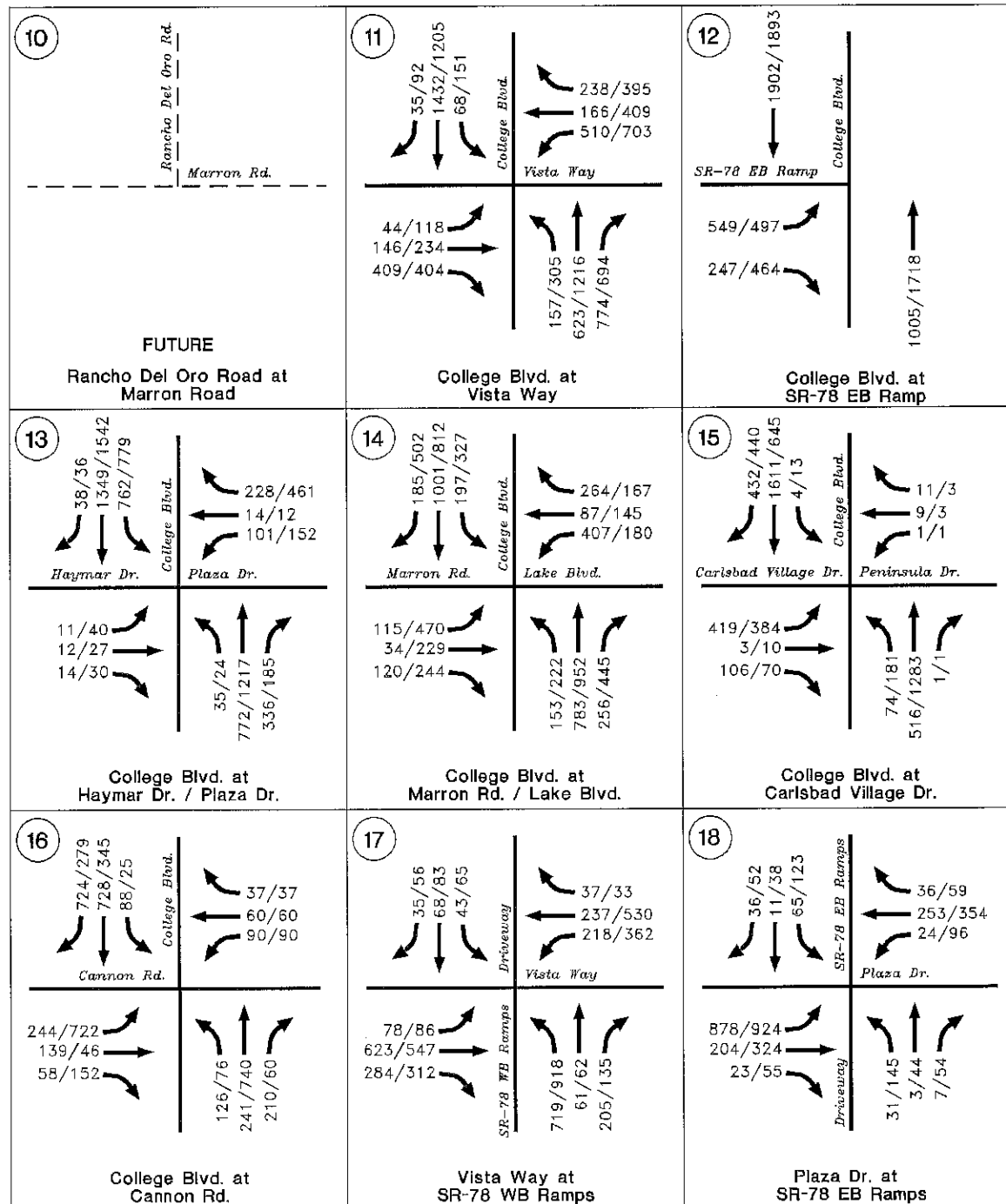


FIGURE 6-5
Existing + Other Projects AM/PM Peak Hour Volumes



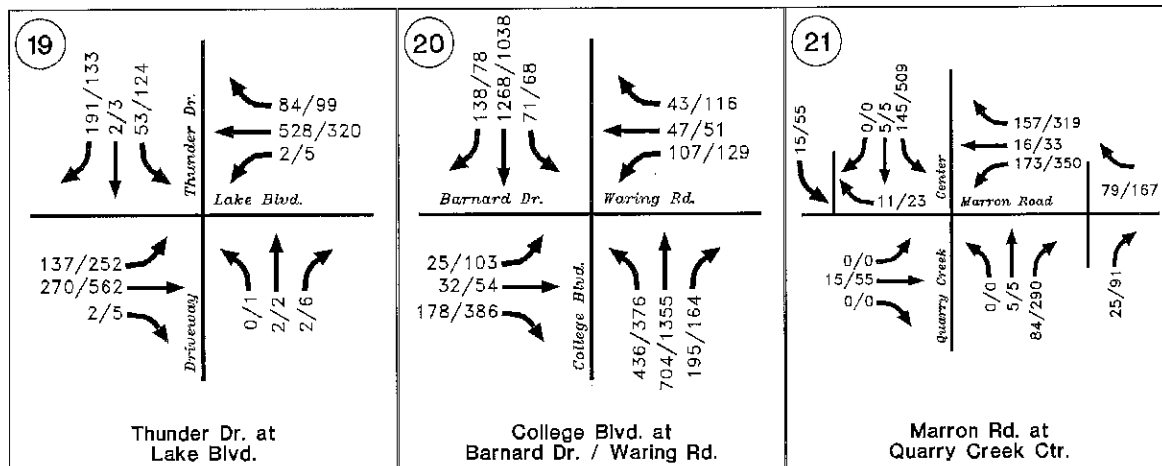


FIGURE 6-5
 Existing + Other Projects AM/PM Peak Hour Volumes



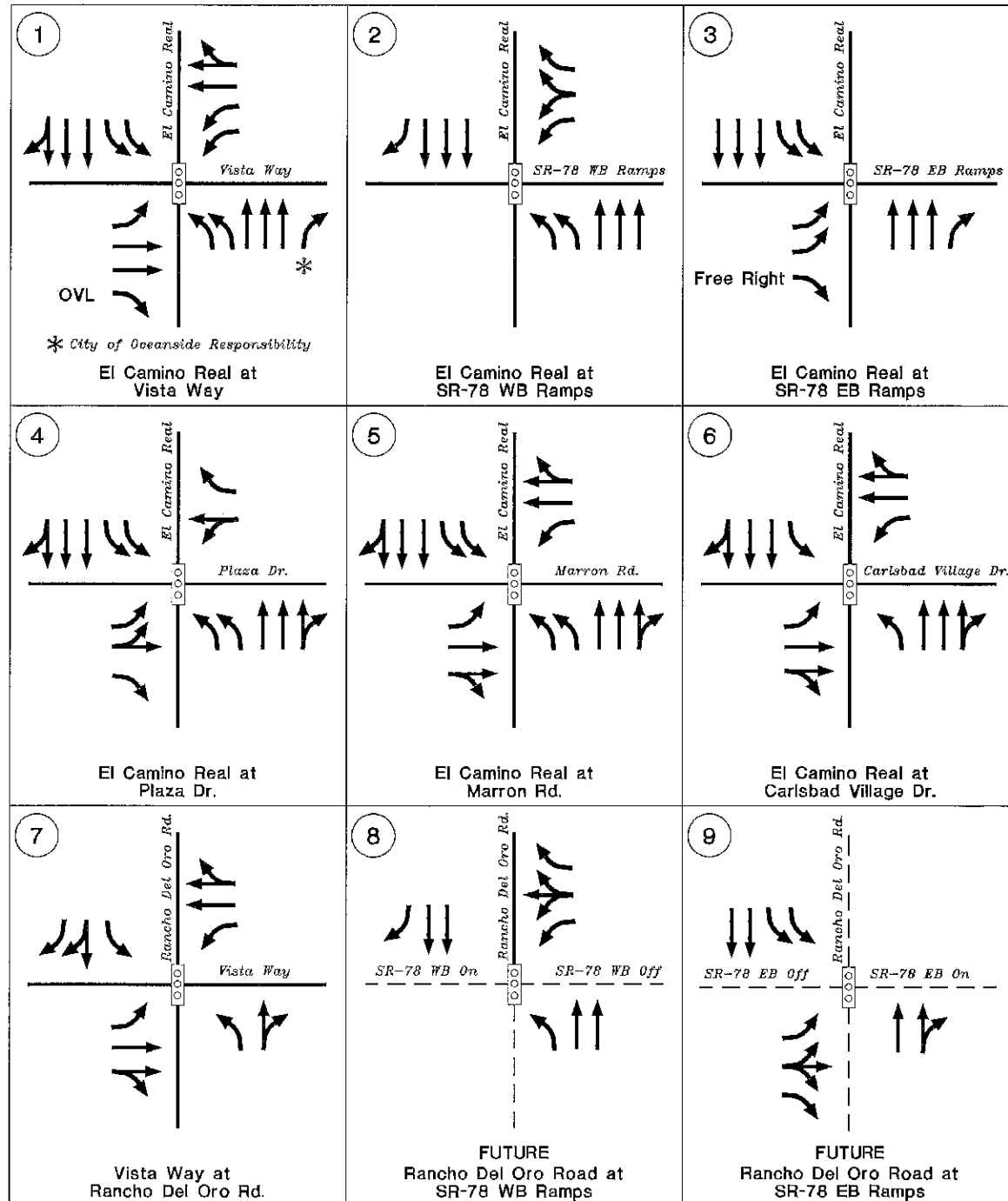


FIGURE 6-6
Near Term Lane Configurations

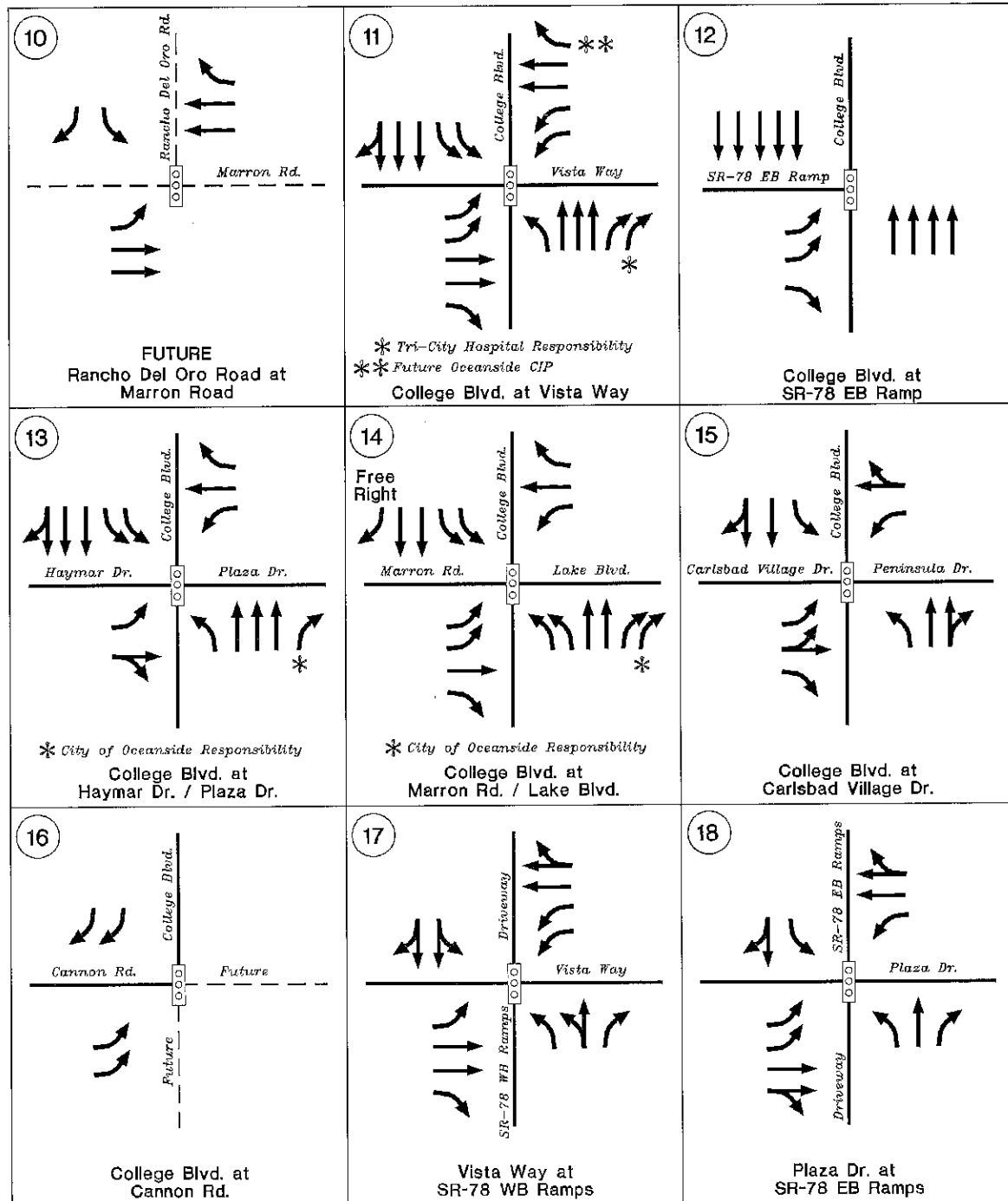


FIGURE 6-6
Near Term Lane Configurations



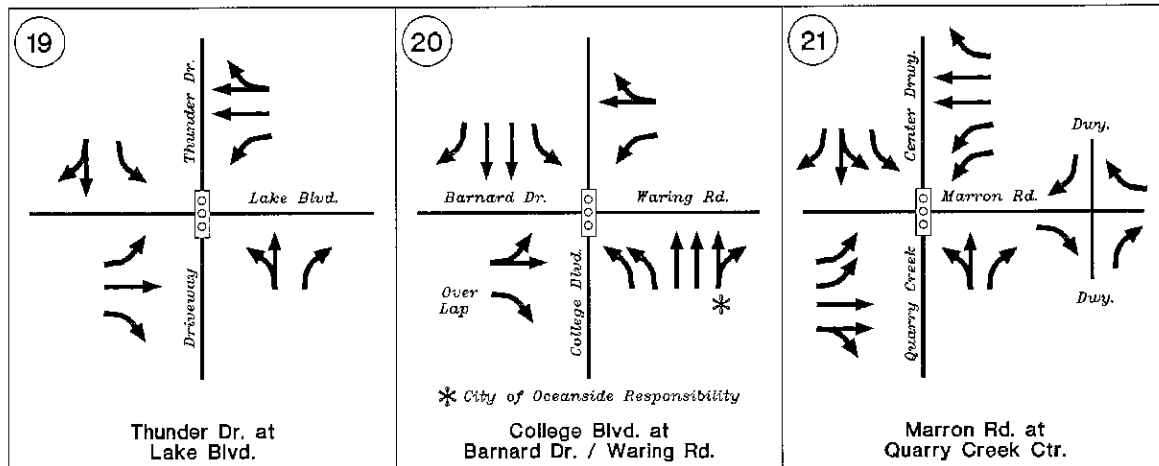


FIGURE 6-6
 Near Term Lane Configurations



- Intersection #20, College Boulevard / Barnard Drive – Waring Road: on College Boulevard in the northbound direction, convert the dedicated right-turn-only lane to a third northbound shared-through / right turn lane. Widen the far side of the intersection to accept the third northbound shared through-right turn lane.

Table 6-3 includes intersection levels of service for the Near-Term Without Project conditions, but without the planned improvements. As indicated in this table all evaluated intersections would operate acceptably under this condition, with existing lane configurations, except at the El Camino Real / Vista Way intersection at level of service “E” during the PM peak hour.

Table 6-3-A shows five intersections that have planned improvements by the City of Oceanside. With mitigation, adding a northbound right turn only lane on El Camino Real to eastbound Vista Way, would mitigate the level of service in the PM peak hour to “D”.

Appendix C includes intersection levels of service worksheets for Near-Term conditions.

6.4 STATE ROUTE 78 MAINLINES

The other pending project’s traffic volumes were added to existing SR-78 freeway volumes and the mainline peak hour level of service are included in **Table 6-4**.

TABLE 6-3

Near Term Without Project Intersection Levels of Service

Number	Intersection	City	AM Peak Hour		PM Peak Hour	
			Delay (1)	LOS	Delay (1)	LOS
1	El Camino Real / Vista Way	OS	36.9	D	64.6	E
2	El Camino Real / SR-78 WB Ramps	OS	24.3	C	30.7	C
3	El Camino Real / SR-78 EB Ramps	OS	18.6	B	51.5	D
4	El Camino Real / Plaza Dr.	CB	11.0	B	29.1	C
5	El Camino Real / Marron Rd.	CB	18.3	B	36.5	D
6	El Camino Real / Carlsbad Village Dr.	CB	34.3	C	33.1	C
7	Vista Way / Rancho Del Oro Rd.	OS	37.9	D	53.6	D
8	Rancho Del Oro Rd. / SR-78 WB Ramps	OS	N/B	N/B	N/B	N/B
9	Rancho Del Oro Rd. / SR-78 EB Ramps	OS	N/B	N/B	N/B	N/B
10	Marron Rd. / Rancho Del Oro Rd.	CB	N/B	N/B	N/B	N/B
11	College Blvd. / Vista Way	OS	41.2	D	38.7	D
12	College Blvd. / SR-78 EB Off Ramp	OS	8.8	A	11.8	B
13	College Blvd. / Plaza Dr.	OS	18.8	B	40.8	D
14	College Blvd. / Marron Rd. / Lake Blvd.	OS	29.7	C	31.6	C
15	College Blvd. / Carlsbad Village Dr.	CB	42.9	D	19.9	B
16	College Blvd. / Cannon Rd.	CB	29.6	C	35.6	D
17	Vista Way / SR-78 WB Ramps	OS	33.2	C	39.7	D
18	Plaza Dr. / SR-78 EB Ramps	OS	21.3	C	26.7	C
19	Lake Blvd. / Thunder Dr.	OS	29.6	C	31.8	C
20	College Blvd. / Waring Rd.	OS	27.1	C	34.0	C
21	Marron Rd. / Quarry Creek Ctr.	OS	23.5	C	33.0	C

Notes:

N/B= Not Built

City:

OS = Oceanside

CB = Carlsbad

(1) = Average Control Delay in Seconds.

LOS	Seconds Delay
A	0.00-10.0
B	10.1-20.0
C	20.1-35.0
D	35.1-55.0
E	55.1-80.0
F	Over 80.0

TABLE 6-3-A

**Near Term Without Project Intersection Levels of Service
 (With Planned but Unfunded Improvements)**

Number	Intersection	Near Term Without Project			
		AM Peak Hour		PM Peak Hour	
		D	LOS	D	LOS
1 OS	El Camino Real / Vista Way (1)	36.3	D	42.3	D
11 OS	College Blvd. / Vista Way (2)	35.9	D	38.2	D
13 OS	College Blvd. / Plaza Dr. (3)	17.7	B	39.2	D
14 OS	College Blvd. / Marron Rd. / Lake Blvd. (4)	29.7	C	30.9	D
20 OS	College Blvd. / Waring Rd. (5)	27.1	C	32.5	C

- (1) = Add a Northbound Right-Turn-Only lane on El Camino Real to Eastbound Vista Way.
 (2) = Add a second Northbound Right-Turn-Only lane on College Blvd. to Eastbound Vista Way. Add a Westbound Right-Turn-Only lane to Northbound College Blvd.
 (3) = Add a Northbound Right-Turn-Only lane on College Blvd. to Eastbound Plaza Dr.
 (4) = Add a second Northbound Right-Turn-Only lane on College Blvd. to Eastbound Lake Blvd.
 (5) = Restripe Northbound Right-Turn-Only lane for a third Northbound shared Through-Right Turn lane. Widen far-side College Blvd. to accept the added Northbound through lane.

Notes:

N/B = Not Built
 D = Control Delay
 LOS = Level of Service

LOS	SECONDS DELAY
A	0.00-10.0
C	20.1-35.0
D	35.1-55.0
E	55.1-80.0
F	Over 80.0

TABLE 6-4

Near Term Without Project Freeway Segment Levels of Service

Segment	Lanes (1-Way)	Cap.	ADT	Peak Hour % (1)	Direction Split (1)	Truck Factor (2)	Peak Volume	V/C	LOS (3)
State Route 78									
I-5 to Jefferson St.	3+AUX	8,850	136,500	8	6 : 4	0.95	6,897	0.779	C
Jefferson St. to El Camino Real	3+AUX	8,850	126,500	8	6 : 4	0.95	6,392	0.722	C
El Camino Real to Rancho Del Oro Rd.	3	7,050	138,200	8	6 : 4	0.95	6,983	0.990	E
Rancho Del Oro Rd. to College Blvd.	3	7,050	138,200	8	6 : 4	0.95	6,983	0.990	E
College Blvd. to Emerald Dr.	3	7,050	128,200	8	6 : 4	0.95	6,478	0.919	D

Legend:

Cap. = Capacity

Mainlane Cap. @ 2,350 VPHPL

Auxillary Lane Cap.@ 1,800 VPHPL

ADT= Average Daily Traffic

V/C= Volume to Capacity Ratio

LOS= Level of Service

Direction Split = % of Peak Hour in Peak Direction

Truck Factor = Represents Capacity Reduction for Heavy Vehicles

Notes:

(1) Source: Caltrans 2010 Traffic Volumes.

(2) Highway Capacity Manual (2000) EQN. (3-2); assume 5% trucks plus RVs.

(3) Caltrans District 11 LOS Estimation Procedures, See Table 2-3

7.0 NEAR TERM PLUS PROJECT

The Quarry Creek Master Plan project only average daily traffic volumes were added to street segments and intersections evaluated under the Near-Term Without Project condition and levels of service were calculated.

Figure 7-1 shows average daily traffic volumes for the Near-Term Plus Project conditions.

Figure 7-2 includes project only AM and PM peak hour volumes added to the Near-Term Without Project conditions.

Figure 7-3 shows Near-Term Plus Project intersection lane configurations.

The roadway system for this Near-Term evaluation assumes no Marron Road extension since the extension would be a long term project, currently unfunded.

7.1 STREET SEGMENTS WITHIN OCEANSIDE

Table 7-1 includes roadway segments within Oceanside with project traffic added to Near-Term conditions. This table indicates that all segments evaluated within Oceanside would operate acceptably with project traffic added except at four locations.



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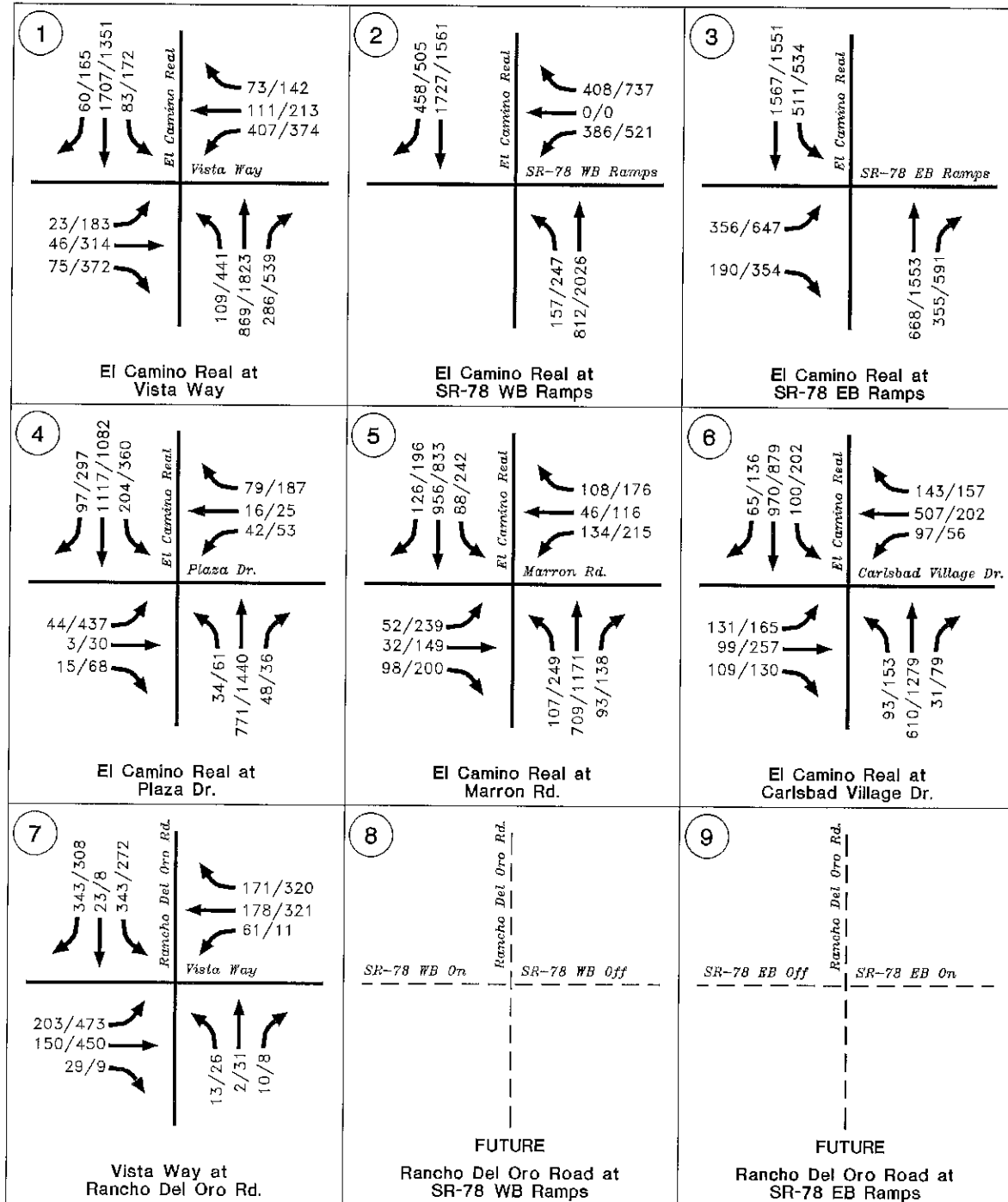


FIGURE 7-2
Near Term + Project AM/PM Peak Hour Traffic



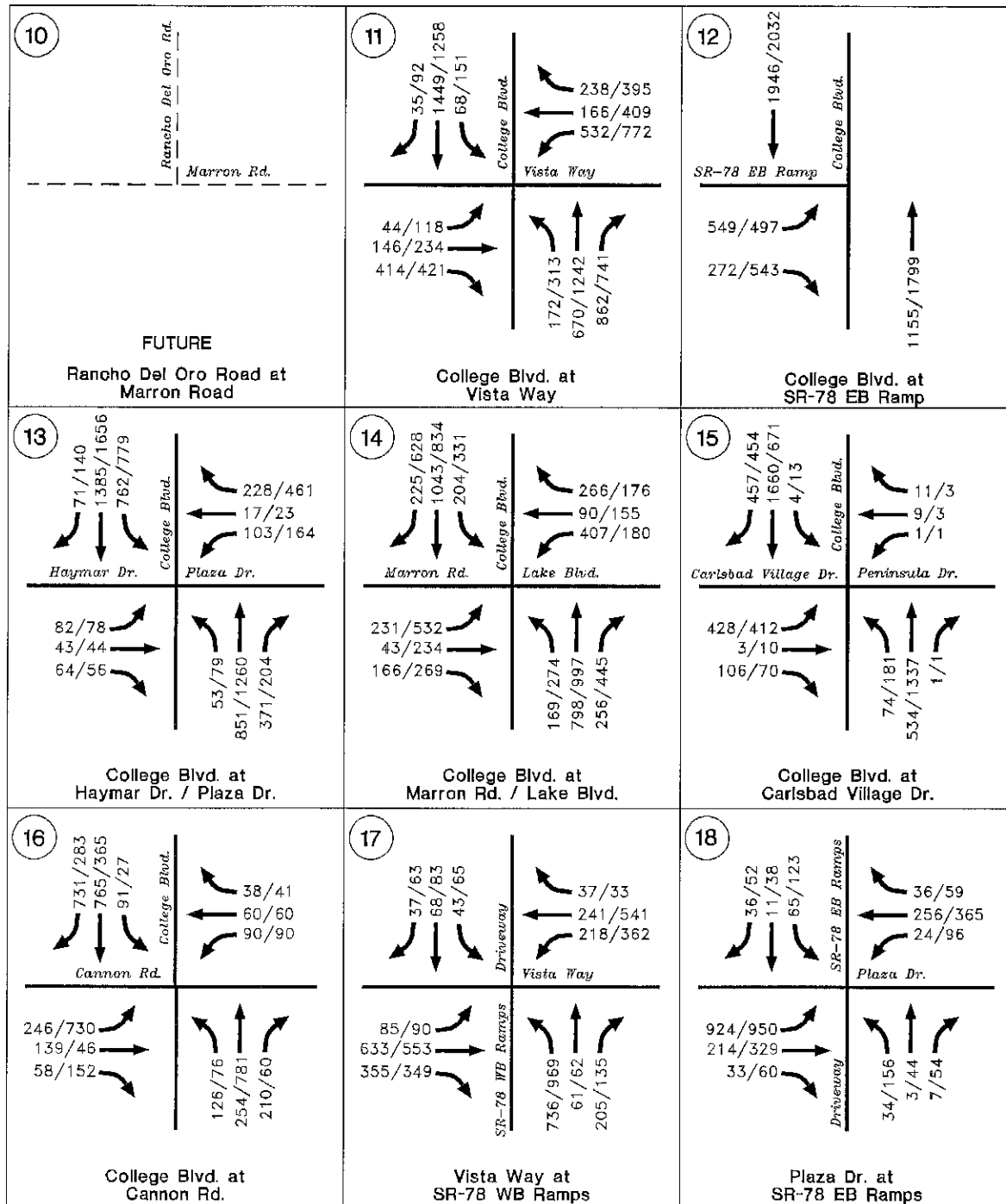


FIGURE 7-2
Near Term + Project AM/PM Peak Hour Traffic



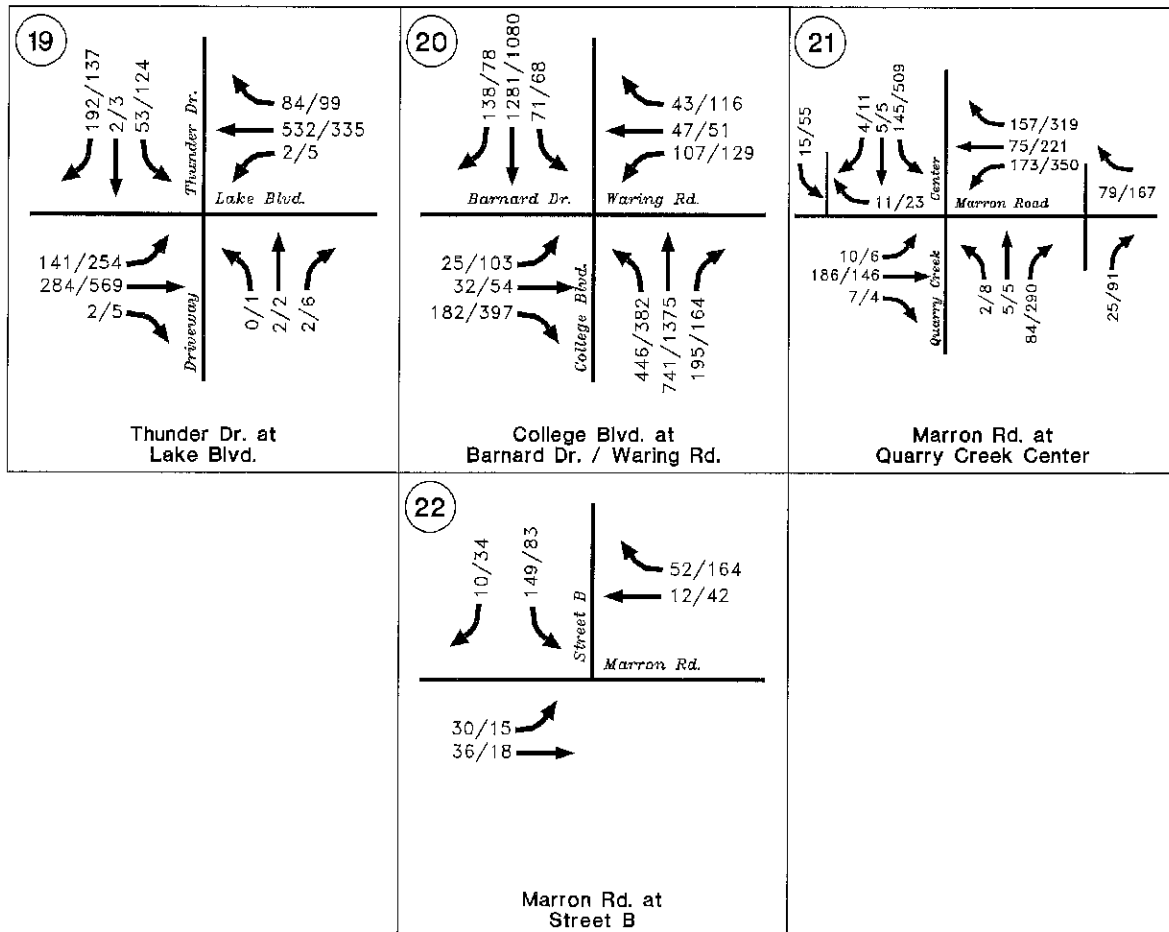


FIGURE 7-2
 Near Term + Project AM/PM Peak Hour Traffic



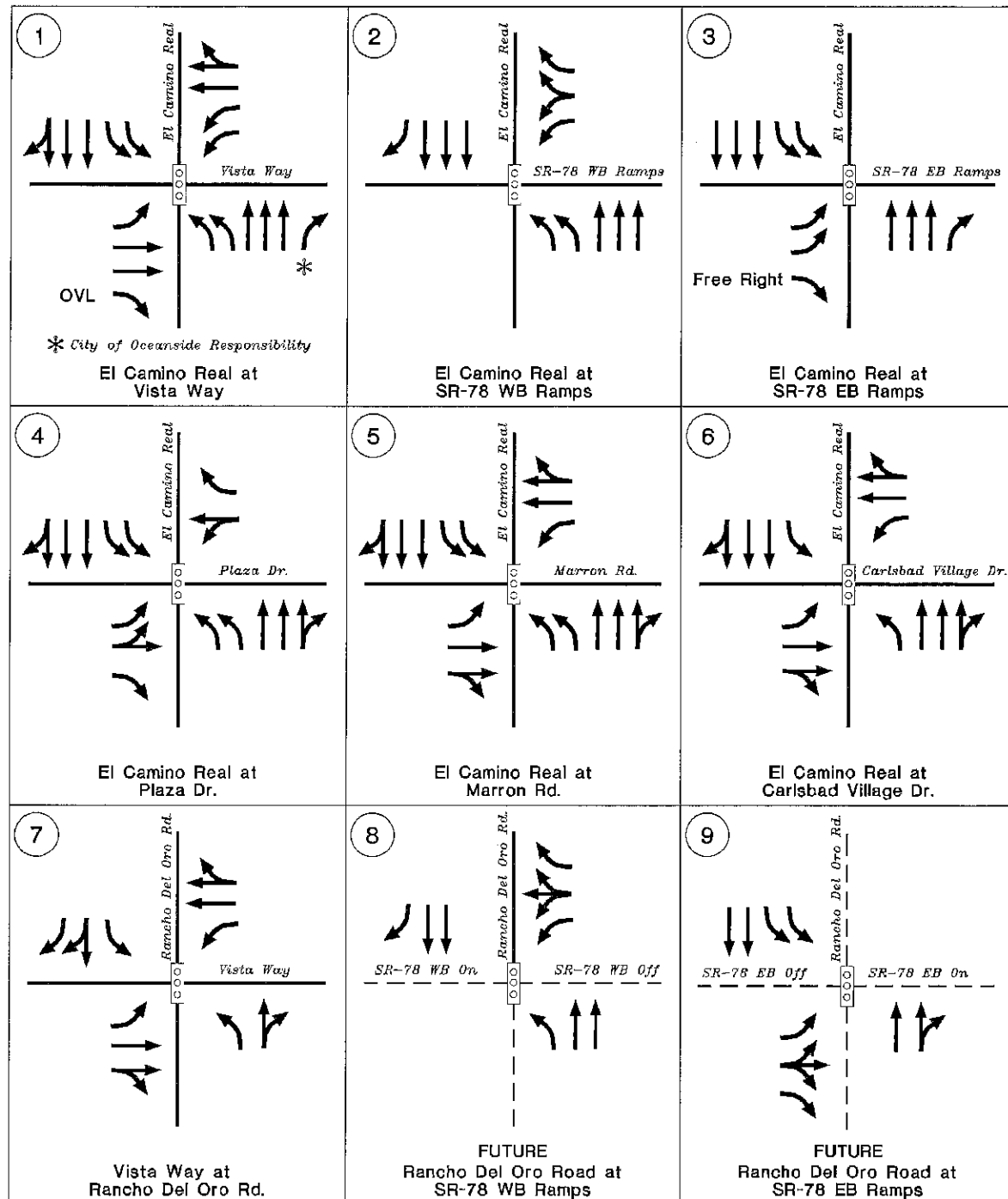


FIGURE 7-3
Near Term + Project Lane Configurations



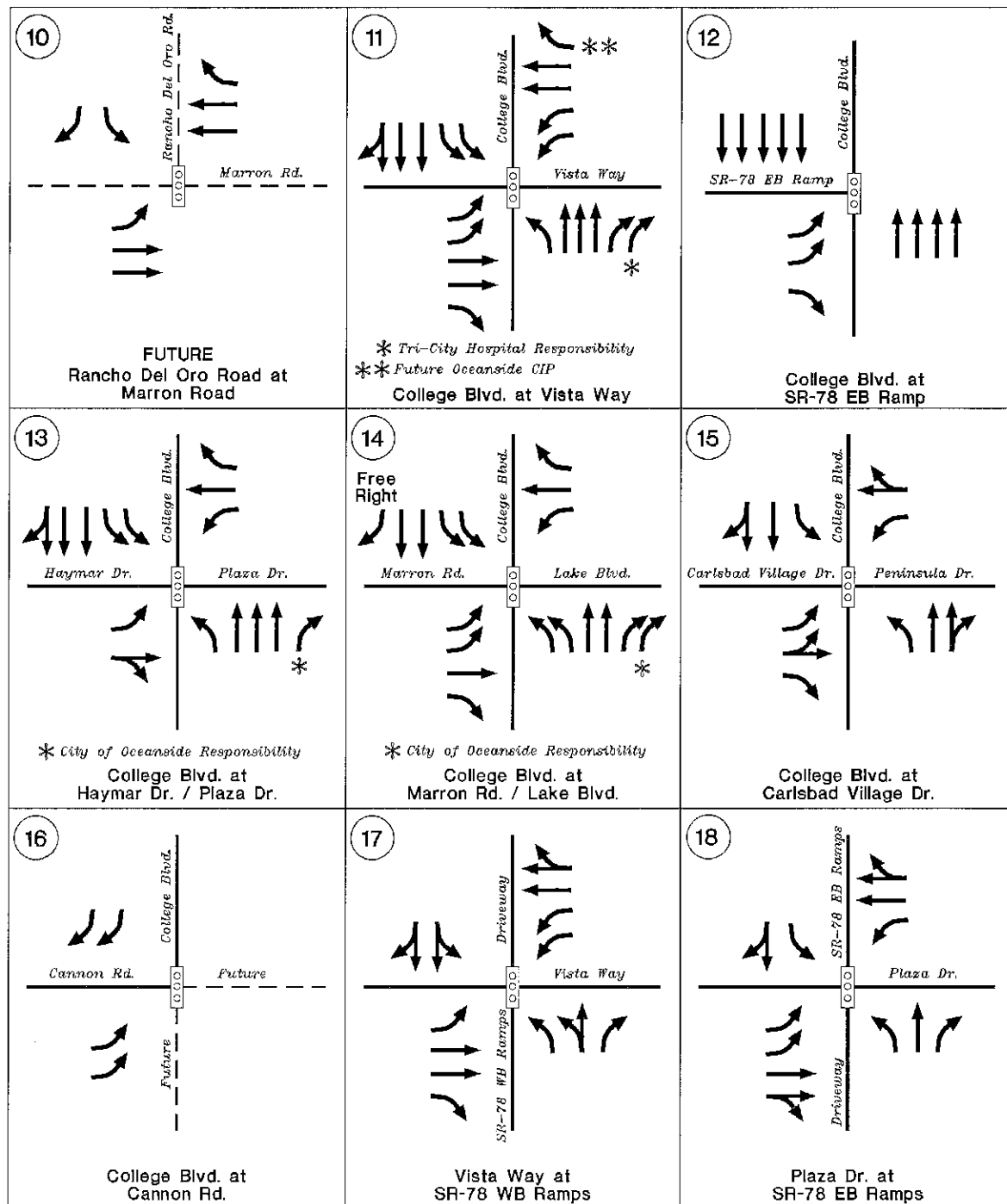


FIGURE 7-3
Near Term + Project Lane Configurations

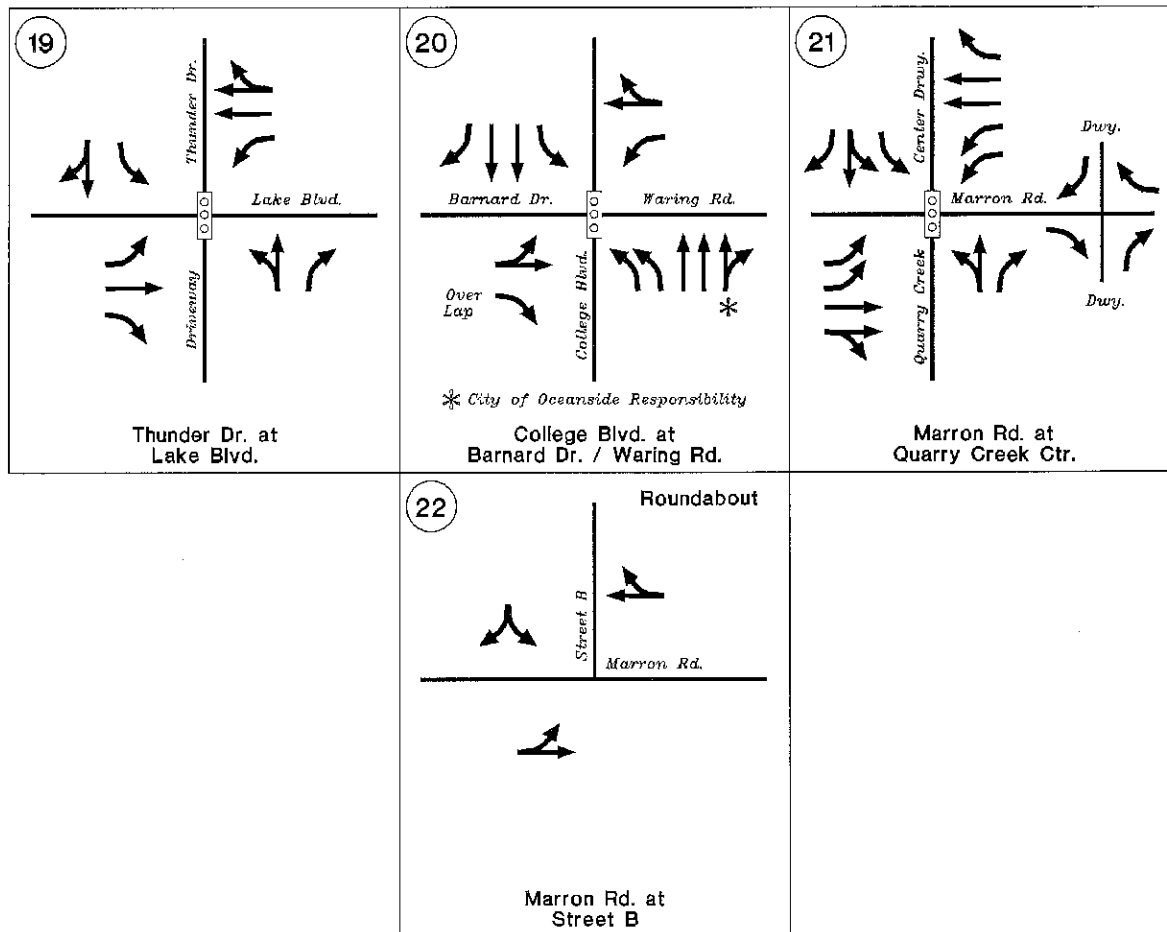


FIGURE 7-3
 Near Term + Project Lane Configurations



TABLE 7-1

**Near Term Plus Project Street Segment Levels of Service
Within Oceanside**

			Project Plus Existing			
Segment	Current Classification	LOS E Capacity (1)	Volume	V / C (2)	ΔV/C	LOS (3)
<u>El Camino Real</u>						
Via Las Rosas to Vista Way	6-PA	60,000	39,900	0.665	0.002	C
Vista Way to SR-78 WB Ramps	6-PA	60,000	57,400	0.957	0.002	E*
<u>College Blvd.</u>						
Barnard Dr. to Vista Way	6-MA	50,000	40,000	0.800	0.016	D
Vista Way to Plaza Dr.	6-MA	50,000	51,000	1.020	0.056	F
Plaza Dr. to Marron Rd.	6-MA	50,000	42,100	0.842	0.052	D
Marron Rd. to South City Limit	4-MA	40,000	29,200	0.730	0.035	C
<u>Vista Way</u>						
Jefferson St. to El Camino Real	4-SCL	30,000	15,800	0.527	0.004	C
El Camino Real to Rancho Del Oro Rd.	4-SCL	30,000	23,000	0.767	0.004	D
Rancho Del Oro Rd. to College Blvd.	4-SCL	30,000	22,100	0.737	0.007	D
College Blvd. to SR-78 WB Ramps	4-SCL	30,000	32,700	1.090	0.040	F
SR-78 WB Ramps to Thunder Dr.	4-SCL	30,000	19,200	0.640	0.007	C
<u>Marron Rd. / Lake Blvd.</u>						
Driveway to College Blvd.	4-SCL	30,000	20,500	0.683	0.096	C
College Blvd. to Thunder Dr.	4-SCL	30,000	14,600	0.487	0.011	C
Thunder Dr. to Sundown Ln.	2-CL	15,000	15,500	1.033	0.013	F*
<u>Haymar Dr. / Plaza Dr.</u>						
Driveway to College Blvd.	2-C	10,000	4,000	0.400	0.250	A
College Blvd. to SR-78 EB Ramps	4-SCL	30,000	24,100	0.803	0.023	D
SR-78 EB Ramps to Thunder Dr.	4-SCL	30,000	12,300	0.410	0.007	B
<u>Rancho Del Oro Rd.</u>						
Vista Way to Tournament Dr.	4-MA	40,000	15,700	0.393	0.003	B

NOTES:

1. Capacity of roadway at LOS E per City of Oceanside Master Transportation Plan, April 2012, Table 3-1.
 2. V / C = Volume to capacity at LOS E ratio; Δ V/C = Change in V/C.
 3. LOS = Level of service.
 4. Δ V/C = Change in V/C: A significant impact occurs at LOS "E" or "F" and the change in V/C ratio is greater than 0.02.
- * = Not significant since the change in V/C ratio is no more than 0.02.

TABLE 7-1-A

Near-Term Plus Project Deficient Segment Peak Hour Analysis

Segment	From / To		AM Peak Hour				PM Peak Hour			
			Speed (MPH)		LOS		Speed (MPH)		LOS	
			W/O	With	W/O	With	W/O	With	W/O	With
El Camino Real	Vista Way to SR-78 WB Ramps	NB	7.7	7.7	F	F	2.8	2.8	F	F
		SB	7.9	7.9	F	F	9.0	9.0	F	F
College Boulevard	Waring Road to Vista Way	NB	20.5	20.3	D	D	20.2	21.1	D	D
		SB	18.4	18.3	D	D	10.5	9.5	F	F
College Boulevard	Vista Way to Plaza Drive	NB	16.7	16.6	E	E	12.4	12.7	F	F
		SB	35.5	35.6	A	A	33.6	32.9	B	B
College Boulevard	Plaza Drive to Lake Blvd.	NB	18.0	17.0	D	D	18.3	18.3	D	D
		SB	22.7	22.3	C	C	21.6	21.5	D	D
Vista Way	College Blvd. to SR-78 WB Ramps	EB	9.2	9.1	F	F	4.6	4.5	F	F
		WB	8.2	8.2	F	F	7.3	7.3	F	F
Lake Boulevard	Thunder Drive to Sundown Lane	EB	25.5	25.4	B	B	22.6	22.6	C	C
		WB	28.8	28.8	B	B	27.5	27.5	B	B

Notes:

At LOS "E" or "F", if the segment travel speed decreases by more than one MPH due to the addition of project traffic, the project will have a significant impact.

*Shading indicates a significant impact.

Note: No segment at LOS "E" or "F" decreases in travel speed by more than one mph for the Near-Term Plus Project Condition.

- El Camino Real between Vista Way and SR-78 Westbound Ramps, at level of service “E”. The project change in volume to capacity ratio is no more than 0.02 (at 0.002) so that the project impact would be less than significant and, therefore, no project mitigation would be needed.
- College Boulevard, between Vista Way and Plaza Drive, is at level of service “F”, and the change in volume to capacity ratio is greater than 0.02. Therefore the project has a significant direct impact to this segment.

Mitigation Recommendations: Since physical improvements to add lanes are infeasible, the April 2012 Final EIR for the City of Oceanside Circulation Element Update recommends reclassification of this segment from a six-lane Major Arterial to a six-lane Prime Arterial. This reclassification would mitigate the project significant impact. However, the Oceanside Update considers roadway reclassification as infeasible, so that the Oceanside Update recommends the adoption of Overriding Considerations.

The changes or alterations are within the responsibility and jurisdiction of the City of Oceanside.

The City of Oceanside does not appear to have adopted a program to construct such improvements and there does not appear to be a program to accept payments in lieu of construction. Due to the fact that the subject impacted segment is located outside the jurisdiction and regulatory authority of the City of Carlsbad, these impacts are considered significant and unmitigable. See CEQA Guidelines Section 15091 (a) (2).

- Vista Way between College Boulevard and the SR-78 Westbound Ramps, at level of service “E”.

The project change in volume to capacity ratio is greater than 0.02 so this would be a significant project impact.

The Oceanside Circulation Element Update recommends providing a westbound dedicated right-turn lane and lengthening the westbound left-turn lanes at the College Boulevard / Vista Way intersection by restriping the existing lanes. As stated in the Update, these improvements would improve peak hour operations but would not fully mitigate segment impacts, so that Overriding Considerations should be adopted. The dedicated westbound right-turn-only lane is a future unfunded Oceanside project, while the restriping is a condition of approval for the Tri-City Medical Office project.

The changes or alterations are within the responsibility and jurisdiction of the City of Oceanside.

The City of Oceanside does not appear to have adopted a program to construct such improvements and there does not appear to be a program to accept payments in lieu of construction. Due to the fact that the subject impacted segment is located outside the jurisdiction and regulatory authority of the City of Carlsbad, these impacts are considered significant and unmitigable. See CEQA Guidelines Section 15091 (a) (2).

- Lake Boulevard, between Thunder Drive and Sundown Lane, decreases from level of service “E” to “F”. However, the change in volume to capacity ratio is less than 0.02 (at 0.013) so that this is not considered a significant impact to this segment, and no project mitigation is required.

No other segments evaluated within the City of Oceanside would be significantly impacted by project traffic for the Near-Term Plus Project condition.

7.2 STREET SEGMENTS WITHIN CARLSBAD

Project only AM and PM peak hour traffic volumes were added to Near-Term Without Project conditions on roadway segments between intersections, and are displayed in **Table 7-2**.

As shown in this table, all street segments within the Carlsbad study area would operate acceptably with project traffic added for the Near-Term Plus Project condition. The project would have less than significant impacts to these segments.

7.3 INTERSECTIONS

Project only peak hour traffic volumes were added to Near-Term Without Project turning movement volumes at study area intersections, and peak hour levels of service were calculated using the Highway Capacity Manual method for intersections within Oceanside and Carlsbad.

TABLE 7-2
Near Term Plus Project Street Segment Levels of Service
Within Carlsbad

			AM PEAK HOUR			PM PEAK HOUR		
Segment	D	Lanes	Peak Hour Volume	V / C (1)	LOS	Peak Hour Volume	V / C (1)	LOS
<u>El Camino Real</u>								
SR-78 EB Ramps - Plaza Dr.	NB	3	1,027	0.19	A	2,151	0.40	A
	SB	3	1,758	0.33	A	1,905	0.35	A
Plaza Dr. - Marron Rd.	NB	3	869	0.16	A	1,586	0.29	A
	SB	3	1,176	0.22	A	1,271	0.24	A
Marron Rd. - Carlsbad Village Dr.	NB	3	909	0.17	A	1,606	0.30	A
	SB	3	1,189	0.22	A	1,253	0.23	A
Carlsbad Village Dr. - Chestnut Ave.	NB	3	734	0.14	A	1,512	0.28	A
	SB	3	1,177	0.22	A	1,068	0.2	A
<u>College Blvd.</u>								
Lake Blvd. - Carlsbad Village Dr.	NB	2	1,226	0.34	A	1,725	0.48	A
	SB	2	2,136	0.59	A	1,294	0.36	A
Carlsbad Village Dr. - Cannon Rd.	NB	2	610	0.17	A	1,558	0.43	A
	SB	2	1,775	0.49	A	748	0.21	A
<u>Marron Rd.</u>								
Monroe Ave. - El Camino Real	EB	2	183	0.05	A	591	0.16	A
	WB	2	278	0.08	A	560	0.16	A
El Camino Real - East End	EB	2	212	0.06	A	528	0.15	A
	WB	2	288	0.08	A	509	0.14	A
<u>Carlsbad Village Dr.</u>								
El Camino Real - Avenida De Anita	EB	2	228	0.06	A	537	0.15	A
	WB	2	758	0.21	A	423	0.12	A
Tamarack Ave. - College Blvd.	EB	2	538	0.15	A	495	0.14	A
	WB	2	544	0.15	A	641	0.18	A

D = Direction

(1) = Based on 1,800 vehicles per lane per hour.

V / C = Volume divided by capacity

Source: Highest Approach Volumes at Intersections.

V/C	LOS
0.00-0.60	A
0.61-0.70	B
0.71-0.80	C
0.81-0.90	D
0.91-1.00	E
Over 1.00	F

Table 7-3 shows the results of the intersection level of service evaluation for the Near-Term Plus Project condition. Also shown in this table are levels of service without the project for comparison.

Within both Oceanside and Carlsbad, a significant impact would occur if the intersection is at level of service “E” or “F”, and the increase in delay resulting from the project is more than 2.0 seconds.

As shown in this table, all evaluated intersections except one maintain an acceptable level of service (i.e., LOS D or better), and, therefore, project impacts are less than significant and no project mitigation would be needed at these locations.

All intersections were evaluated with existing lane configurations.

The El Camino Real / Vista Way intersection would operate at level of service “E” without or with project traffic added. The change in delay resulting from the project is less than 2.0 seconds so the project impact is less than significant, and no project mitigation is required.

Table 7-3-A includes five intersections within Oceanside that have planned improvements for Near-Term and Buildout conditions. The El Camino Real / Vista Way intersection would operate acceptably with the planned but unfunded Oceanside improvement of adding a northbound right-turn-only lane on El Camino Real.

Appendix D includes Near-Term Plus Project intersection levels of service worksheets.

TABLE 7-3

Near Term Plus Project Intersection Levels of Service

Number	Intersection	Near Term Without Project				Near Term Plus Project							
		AM Peak Hour		PM Peak Hour		AM Peak Hour				PM Peak Hour			
		D	LOS	D	LOS	D	LOS	Δ D	S ?	D	LOS	Δ D	S ?
1 OS	El Camino Real / Vista Way	36.9	D	64.6	E	37.0	D	0.1	N	65.1	E	0.5	N
2 OS	El Camino Real / SR-78 WB Ramps	24.3	C	30.7	C	24.4	C	0.1	N	31.0	C	0.3	N
3 OS	El Camino Real / SR-78 EB Ramps	18.6	B	51.5	D	18.6	B	0.0	N	51.5	D	0.0	N
4 CB	El Camino Real / Plaza Dr.	11.0	B	29.1	C	11.0	B	0.0	N	29.3	C	0.2	N
5 CB	El Camino Real / Marron Rd.	18.3	B	36.5	D	18.4	B	0.1	N	36.7	D	0.2	N
6 CB	El Camino Real / Carlsbad Village Dr.	34.3	C	33.1	C	34.5	C	0.2	N	33.2	C	0.1	N
7 OS	Vista Way / Rancho Del Oro Rd.	37.9	D	53.6	D	37.9	D	0.0	N	54.4	D	0.8	N
8 OS	Rancho Del Oro Rd. / SR-78 WB Ramps	N/B	N/B	N/B	N/B	N/B	N/B	N/B	N/B	N/B	N/B	N/B	N/B
9 OS	Rancho Del Oro Rd. / SR-78 EB Ramps	N/B	N/B	N/B	N/B	N/B	N/B	N/B	N/B	N/B	N/B	N/B	N/B
10 CB	Marron Rd. / Rancho Del Oro Rd.	N/B	N/B	N/B	N/B	N/B	N/B	N/B	N/B	N/B	N/B	N/B	N/B
11 OS	College Blvd. / Vista Way	41.2	D	38.7	D	50.0	D	8.8	N	43.2	D	4.5	N
12 OS	College Blvd. / SR-78 EB Off Ramp	8.8	A	11.8	A	8.9	A	0.1	N	18.1	B	6.3	N
13 OS	College Blvd. / Plaza Dr.	18.8	B	40.8	D	21.6	B	2.8	N	41.7	D	0.9	N
14 OS	College Blvd. / Marron Rd. / Lake Blvd.	29.7	C	31.6	C	31.1	C	1.4	N	36.5	D	4.9	N
15 CB	College Blvd. / Carlsbad Village Dr.	42.9	D	19.9	B	45.1	D	2.2	N	20.3	C	0.4	N
16 CB	College Blvd. / Cannon Rd.	29.6	C	35.6	D	32.0	C	2.4	N	36.1	D	0.5	N
17 OS	Vista Way / SR-78 WB Ramps	33.2	C	39.7	D	33.7	C	0.5	N	41.2	D	1.5	N
18 OS	Plaza Dr. / SR-78 EB Ramps	21.3	C	26.7	C	21.4	C	0.1	N	27.1	C	0.4	N
19 OS	Lake Blvd. / Thunder Dr.	29.6	B	31.8	C	29.8	C	0.2	N	32.1	C	0.3	N
20 OS	College Blvd. / Waring Rd.	27.1	C	34.0	C	27.8	C	0.7	N	36.3	D	2.3	N
21 OS	Marron Rd. / Quarry Creek Dr.	23.5	C	33.0	C	23.3	C	0.3	N	34.0	C	1.0	N
22 OS	Marron Rd. / Street B	N/A	N/A	N/A	N/A	(1)	A	(1)	N	(1)	A	(1)	N

Notes:

N/B = Not Built

(1) Roundabout: Delay is not applicable; LOS is based on V/C; AM and PM V/C is LOS A.

City:

OS = Oceanside

CB = Carlsbad

D = Control Delay

LOS = Level of Service

Δ D = Change in Delay

S ? = Significant Impact: Yes (Y) or No (N).

LOS	SECONDS DELAY
A	0.00-10.0
C	20.1-35.0
D	35.1-55.0
E	55.1-80.0
F	Over 80.0

TABLE 7-3-A

Near Term Plus Project Intersection Levels of Service
(With Planned but Unfunded Improvements)

Number	Intersection	Near Term Without Project				Near Term Plus Project							
		AM Peak Hour		PM Peak Hour		AM Peak Hour				PM Peak Hour			
		D	LOS	D	LOS	D	LOS	Δ D	S ?	D	LOS	Δ D	S ?
1 OS	El Camino Real / Vista Way (1)	36.3	D	42.3	D	36.4	D	0.1	N	42.6	D	0.3	N
11 OS	College Blvd. / Vista Way (2)	35.9	D	38.2	D	37.7	D	1.8	N	42.7	D	4.5	N
13 OS	College Blvd. / Plaza Dr. (3)	17.7	B	39.2	D	19.8	B	2.1	N	39.6	D	0.4	N
14 OS	College Blvd. / Marron Rd. / Lake Blvd. (4)	29.7	C	31.6	D	31.1	C	1.4	N	35.8	D	0.0	N
20 OS	College Blvd. / Waring Rd. (5)	27.1	C	32.5	C	27.8	C	0.7	N	34.5	C	2.0	N

- (1) = Add a Northbound Right-Turn-Only lane on El Camino Real to Eastbound Vista Way.
(2) = Add a second Northbound Right-Turn-Only lane on College Blvd. to Eastbound Vista Way. Add a Westbound Right-Turn-Only lane to Northbound College Blvd.
(3) = Add a Northbound Right-Turn-Only lane on College Blvd. to Eastbound Plaza Dr.
(4) = Add a second Northbound Right-Turn-Only lane on College Blvd. to Eastbound Lake Blvd.
(5) = Restripe Northbound Right-Turn-Only lane for a third Northbound shared Through-Right Turn lane. Widen far-side College Blvd. to accept the added Northbound through lane.

Notes:

N/B = Not Built

(1) Roundabout: Delay is not applicable; LOS is based on V/C; AM and PM V/C is LOS A.

City:

OS = Oceanside

CB = Carlsbad

D = Control Delay

LOS = Level of Service

Δ D = Change in Delay

S ? = Significant Impact: Yes (Y) or No (N).

LOS	SECONDS DELAY
A	0.00-10.0
C	20.1-35.0
D	35.1-55.0
E	55.1-80.0
F	Over 80.0

7.4 STATE ROUTE 78 MAINLINES

The project traffic volumes were added to Near-Term Without Project SR-78 average daily traffic volumes and are included in **Table 7-4**. This table shows Near-Term With and Without Project freeway volumes. This table also compares levels of service and volume to capacity (V/C) ratios, and indicates if the project has or has not a significant freeway impact. At levels of service “E” or “F” an increase in V/C ratio of no more than 0.01 is acceptable. As shown in this table, segments at level of service “E” have V/C increases of less than 0.01 so that the project has less than significant impacts to SR-78 mainlines.

TABLE 7-4

Near Term Plus Project Freeway Segment Levels of Service

NEAR TERM WITHOUT PROJECT									
Segment	Lanes (1-Way)	Cap.	ADT	Peak Hour % (1)	Direction Split (1)	Truck Factor (2)	Peak Volume	V/C	LOS (3)
State Route 78									
I-5 to Jefferson St.	3+AUX	8,850	136,500	8	6 : 4	0.95	6,897	0.779	C
Jefferson St. to El Camino Real	3+AUX	8,850	126,500	8	6 : 4	0.95	6,392	0.722	C
El Camino Real to Rancho Del Oro Rd.	3	7,050	138,200	8	6 : 4	0.95	6,983	0.990	E
Rancho Del Oro Rd. to College Blvd.	3	7,050	138,200	8	6 : 4	0.95	6,983	0.990	E
College Blvd. to Emerald Dr.	3	7,050	128,200	8	6 : 4	0.95	6,478	0.919	D
NEAR TERM WITH PROJECT									
Segment	Lanes (1-Way)	Cap.	ADT	Peak Hour % (1)	Direction Split (1)	Truck Factor (2)	Peak Volume	V/C	LOS (3)
State Route 78									
I-5 to Jefferson St.	3+AUX	8,850	137,300	8	6 : 4	0.95	6,937	0.784	C
Jefferson St. to El Camino Real	3+AUX	8,850	127,300	8	6 : 4	0.95	6,432	0.727	C
El Camino Real to Rancho Del Oro Rd.	3	7,050	139,300	8	6 : 4	0.95	7,038	0.998	E
Rancho Del Oro Rd. to College Blvd.	3	7,050	139,300	8	6 : 4	0.95	7,038	0.998	E
College Blvd. to Emerald Dr.	3	7,050	128,900	8	6 : 4	0.95	6,513	0.924	D
LEVEL OF SERVICE AND V/C COMPARISON									
Segment	V/C With	LOS	V/C Without Project	LOS	Change in V/C	S?			
State Route 78									
I-5 to Jefferson St.	0.784	C	0.779	C	0.005	N			
Jefferson St. to El Camino Real	0.727	C	0.722	C	0.005	N			
El Camino Real to Rancho Del Oro Rd.	0.995	E	0.990	E	0.008	N			
Rancho Del Oro Rd. to College Blvd.	0.995	E	0.990	E	0.008	N			
College Blvd. to Emerald Dr.	0.924	D	0.919	D	0.005	N			

Legend:

Cap. = Capacity
Mainlane Cap. @ 2,350 VPHPL
Auxillary Lane Cap. @ 1,800 VPHPL
ADT= Average Daily Traffic
V/C= Volume to Capacity Ratio
LOS= Level of Service
Direction Split = % of Peak Hour in Peak Direction
Truck Factor = Represents Capacity Reduction for Heavy Vehicles

Notes:

(1) Source: Caltrans 2010 Traffic Volumes.
(2) Highway Capacity Manual (2000) EQN. (3-2); assume 5% trucks plus RV's.
(3) Caltrans District 11 LOS Estimation Procedures, See Table 2-3
S? = Significant Impact: Yes (Y), No (N).
(At LOS E or F, an increase in V/C of no more than 0.01 is acceptable).

8.0 BUILDOUT ALTERNATIVE 1

The land use for the Quarry Creek Master Plan remains the same for each of the two street network alternatives.

The base street network for Alternative 1 assumes all roadways that are included in the City of Carlsbad and City of Oceanside General Plan Circulation Plans. The Alternative 1 street network assumes the extension of Marron Road from the existing east end at the Quarry Creek Shopping Center property line, to the existing west end approximately 1,000 feet east of El Camino Real within the City of Carlsbad. This alternative includes the Rancho Del Oro interchange with State Route 78 and the extension to the south to connect with Marron Road.

The SANDAG Series 11 Combined North County Traffic Model was used for each alternative to predict Buildout average daily traffic volumes. A select zone plot of project only traffic distribution was also prepared to provide an indication of project only traffic distribution percentages.

Figure 8-1 shows the project only vehicle trip distribution percentages for Alternative 1.

Figure 8-2 includes the project only average daily traffic volumes based on the select zone trip distribution.

Figure 8-3 shows the study area street network with average daily traffic volumes for Alternative 1 without project traffic.

Figure 8-4 includes the Alternative 1 full Buildout average daily traffic volumes with project traffic.

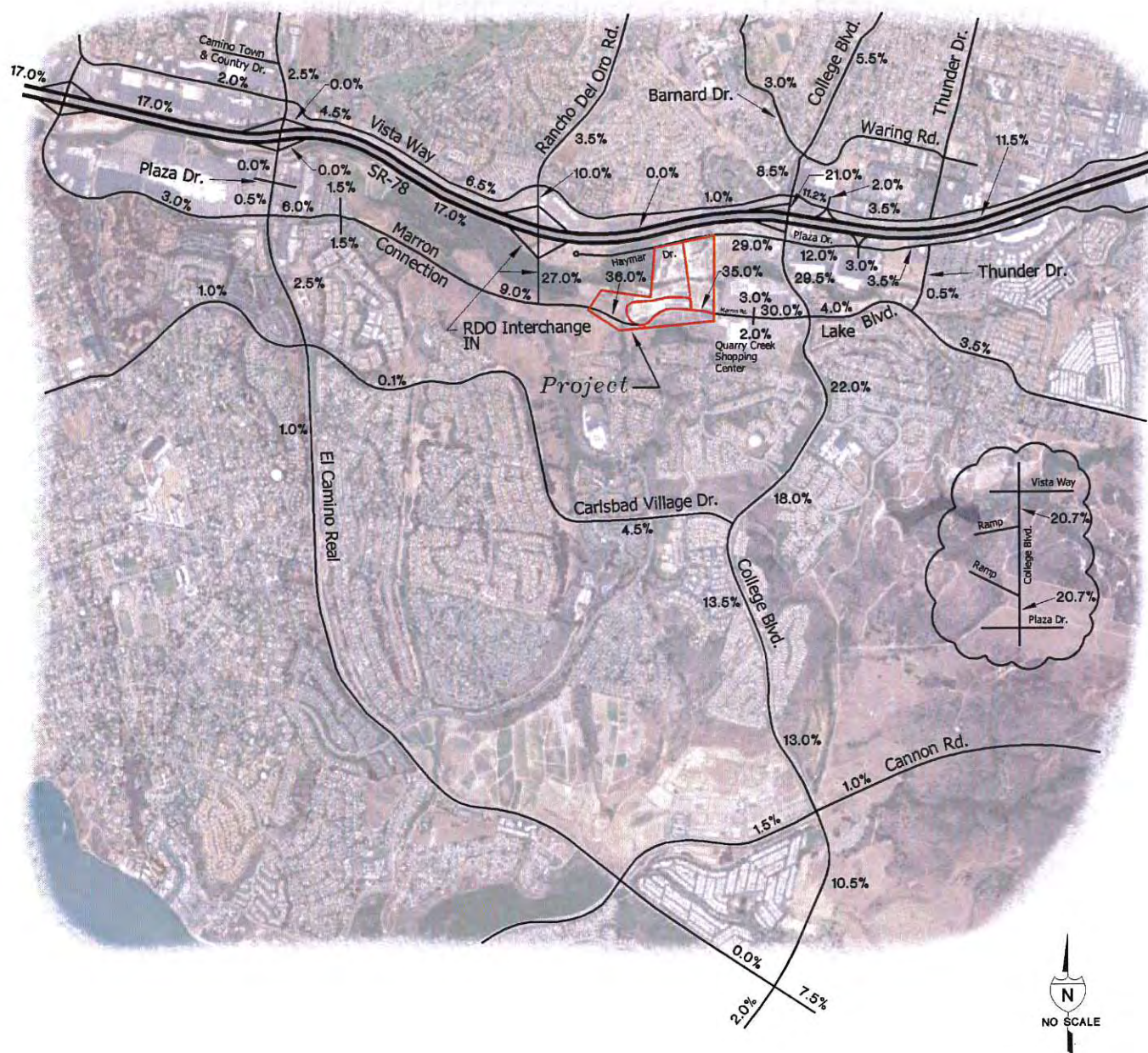
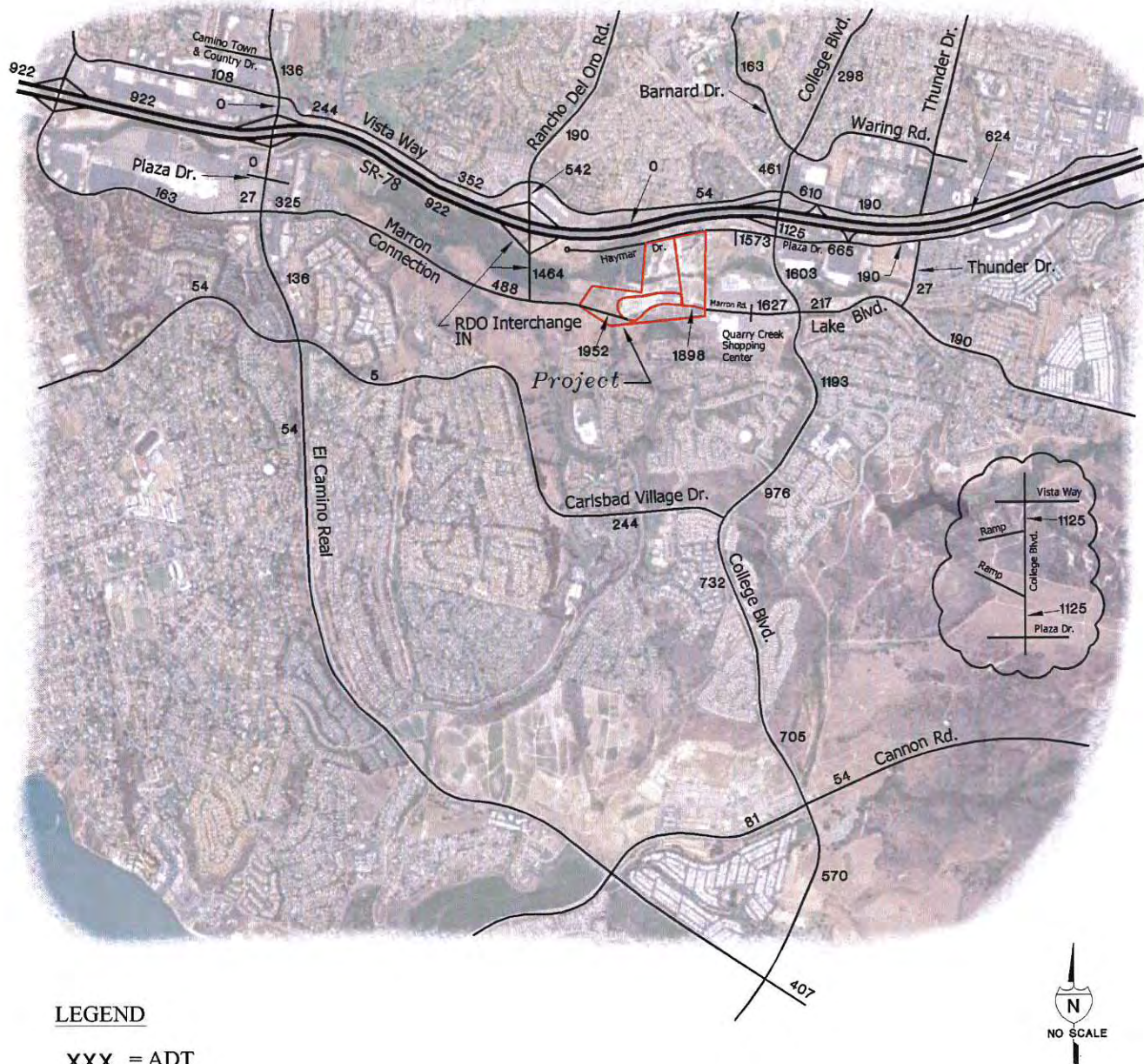


FIGURE 8-1
Project Trip Distribution Percentages - Alternative 1
Circulation Element Roadways (All In)



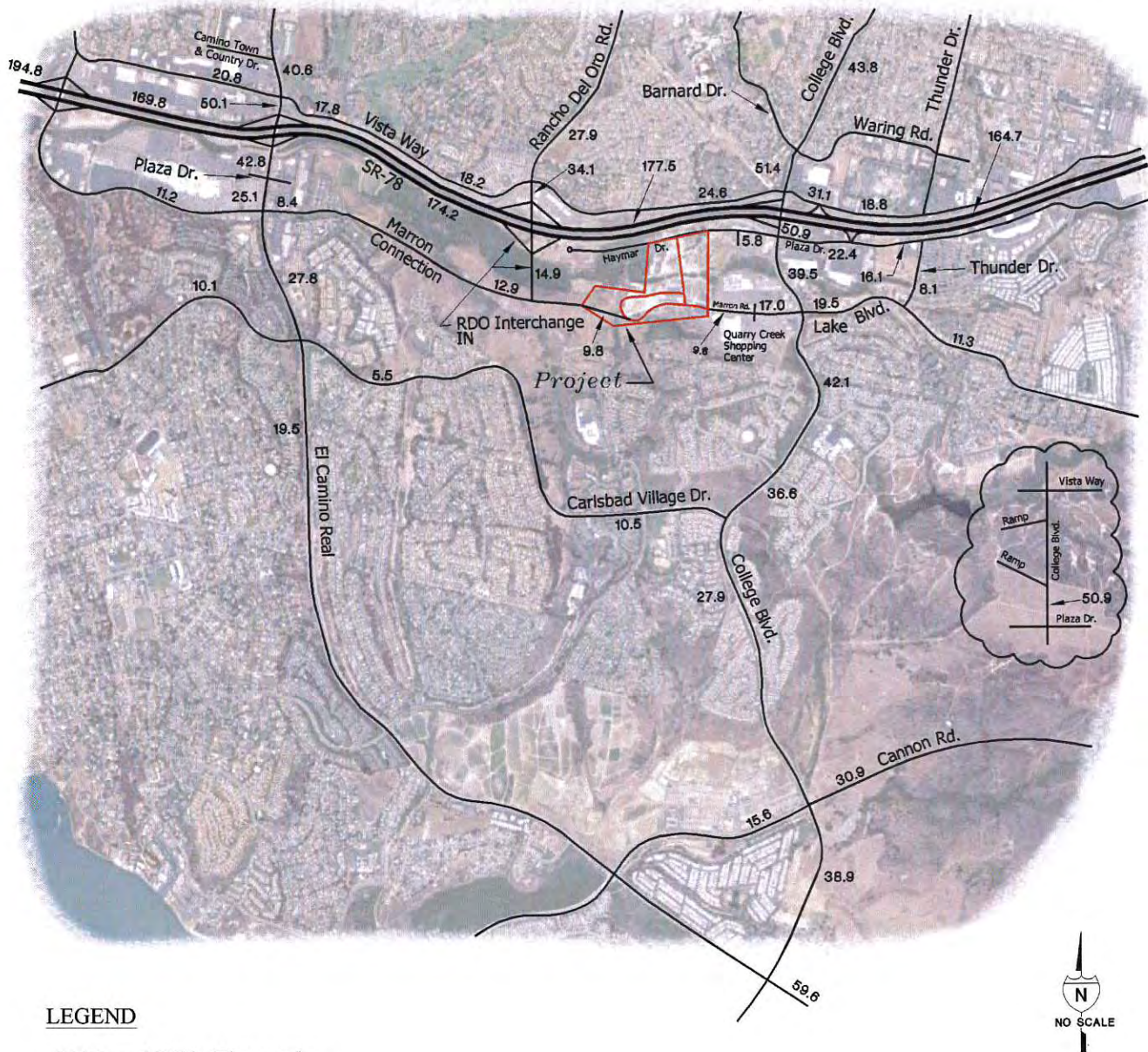


FIGURE 8-3
Buildout ADT Volumes - Alternative 1
Without Project



LEGEND

XX.X = ADT in Thousands
McMillin-1 (4-25-11)

FIGURE 8-4
Buildout ADT Volumes - Alternative 1
With Project

8.1 STREET SEGMENTS WITHIN OCEANSIDE

Table 8-1 displays the Buildout Alternative 1 average daily traffic volumes without and with project traffic. The project would have a significant impact to street segments if a segment is at level of service E or F and the increase in volume to capacity ratio due to added project traffic is greater than 0.02. This table indicates that all segments evaluated within Oceanside would operate acceptably with project traffic added except at four locations. These segments would be at LOS F without or with project traffic. The project would have a significant cumulative impact at only two of these segments:

- College Boulevard between Vista Way and Plaza Drive (a six-lane Major Arterial); the project fair share is 15.5%;
- College Boulevard between Marron Road and the southern City limit (a four-lane Major Arterial); the project fair share is 6.4%.

A peak hour segment analysis was conducted for the deficiently operating College Boulevard corridor and the results are shown in **Table 8-1-A**. This analysis indicates one additional segment of this corridor would have a significant project impact.

- College Boulevard (Plaza Drive to Marron Road – Lake Boulevard). The average travel speed decreases by more than one mile per hour with project traffic added, which indicates a significant impact. The project fair share is 32.8%.

Mitigation Recommendations: Since physical improvements are infeasible, the Final City of Oceanside Circulation Element Update EIR recommends reclassification of these segments from a six-lane Major Arterial, and four-lane Major Arterial, to six-lane Prime Arterials. This reclassification would mitigate

the project significant impact. However, the Oceanside Update considers roadway reclassification as infeasible, so that the Oceanside Update Final EIR recommends adoption of Overriding Considerations.

The changes or alterations are within the responsibility and jurisdiction of the City of Oceanside. The City of Oceanside does not appear to have adopted a program to construct such improvements and there does not appear to be a program to accept payments in lieu of construction. Due to the fact that the subject impacted segment is located outside the jurisdiction and regulatory authority of the City of Carlsbad, these impacts are considered significant and unmitigable. See CEQA Guidelines Section 15091 (a) (2).

TABLE 8-1

Buildout Alternative -1 Street Segment Levels of Service

Within Oceanside

			No Project			Plus Project			
Segment	Current Classification	LOS E Capacity (1)	ADT	(3) LOS	V/C (2)	ADT	(3) LOS	V/C (2)	Δ (4) V/C
<u>El Camino Real</u>									
Via Las Rosas to Vista Way	6-PA	60,000	40,600	C	0.677	40,800	C	0.680	0.003
Vista Way to SR-78 WB Ramps	6-PA	60,000	50,100	D	0.835	50,100	D	0.835	0.000
<u>College Blvd.</u>									
Barnard Dr. to Vista Way	6-MA	50,000	51,400	F	1.028	51,900	F*	1.038	0.010
Vista Way to Plaza Dr.	6-MA	50,000	50,900	F	1.018	52,000	F	1.040	0.022
Plaza Dr. to Marron Rd.	6-MA	50,000	39,500	C	0.790	41,100	D	0.822	0.032
Marron Rd. to South City Limit	4-MA	40,000	42,100	F	1.053	43,300	F	1.083	0.030
<u>Vista Way</u>									
Jefferson St. to El Camino Real	4-SCL	30,000	20,800	D	0.693	20,900	D	0.697	0.004
El Camino Real to Rancho Del Oro Rd.	4-SCL	30,000	18,200	C	0.607	18,600	C	0.620	0.013
Rancho Del Oro Rd. to College Blvd.	4-SCL	30,000	24,600	D	0.820	24,700	D	0.823	0.003
College Blvd. to SR-78 WB Ramps	4-SCL	30,000	31,100	F	1.037	31,700	F*	1.057	0.020
SR-78 WB Ramps to Thunder Dr.	4-SCL	30,000	18,800	C	0.627	19,000	C	0.633	0.006
<u>Marron Rd. / Lake Blvd.</u>									
Quarry Creek Driveway to College Blvd.	4-SCL	30,000	17,000	C	0.531	18,600	C	0.620	0.089
College Blvd. to Thunder Dr.	4-SCL	30,000	19,500	C	0.650	19,700	C	0.657	0.006
Thunder Dr. to Sundown Ln.	2-CL	15,000	11,300	D	0.753	11,500	D	0.767	0.014
<u>Haymar Dr. / Plaza Dr.</u>									
R-1 Driveway to College Blvd.	2-C	10,000	5,800	C	0.580	7,400	C	0.740	0.160
College Blvd. to SR-78 EB Ramps	4-SCL	30,000	22,400	D	0.747	23,100	D	0.770	0.023
SR-78 EB Ramps to Thunder Dr.	4-SCL	30,000	16,100	C	0.537	16,300	C	0.543	0.006
<u>Rancho Del Oro Rd.</u>									
Vista Way to Tournament Dr.	4-MA	40,000	27,900	C	0.698	28,100	C	0.703	0.005

NOTES:

1. Capacity of roadway at LOS E per City of Oceanside Master Transportation Plan, April 2012, Table 3-1.
 2. V / C = Volume to capacity at LOS E ratio; Δ V/C = Change in V/C.
 3. LOS = Level of service.
 4. Δ V/C = Change in V/C: A significant impact occurs at LOS "E" or "F" and the change in V/C ratio is greater than 0.02.
- * = Not significant since change in V/C ratio is no more than 0.02.

TABLE 8-1-A

Buildout Alternative 1

Deficient Segment Peak Hour Analysis

Segment	From / To		AM Peak Hour				PM Peak Hour			
			Speed (MPH)		LOS		Speed (MPH)		LOS	
			W/O	With	W/O	With	W/O	With	W/O	With
College Boulevard	Waring Road to Vista Way	NB	20.7	20.6	D	D	22.5	22.5	C	C
		SB	18.4	18.3	D	D	10.1	9.5	F	F
College Boulevard	Vista Way to Plaza Drive	NB	31.2	31.2	B	B	23.6	23.6	C	C
		SB	31.2	31.2	B	B	27.0	27.0	C	C
College Boulevard	Plaza Drive to Lake Blvd.	NB	18.4	18.1	D	D	13.5	10.1	E	F
		SB	18.1	17.0	D	D	19.9	21.0	D	D
Vista Way	College Blvd. to SR-78 WB Ramps	EB	8.6	8.5	F	F	5.1	5.0	F	F
		WB	9.4	9.4	F	F	9.8	9.7	F	F

Notes:

At LOS "E" or "F", if the segment travel speed decreases by more than one MPH due to the addition of project traffic, the project will have a significant impact.

*Shading indicates a significant impact.

- Vista Way, between College Boulevard and the SR-78 westbound ramps. This segment is at level of service “F” under Buildout Alternative 1 conditions without and with project traffic added. The project change in volume to capacity ratio is no more than 0.020, at 0.020, so that project impacts are less than significant. A peak hour segment analysis also indicates the project impact is less than significant on this segment since the addition of project traffic does not reduce the segment travel speed by more than one mile per hour, as indicated in **Table 8-1-A**.

No other segments evaluated within the City of Oceanside would be significantly impacted by project traffic for the Buildout Alternative 1 condition.

8.2 STREET SEGMENTS WITHIN CARLSBAD

Project only AM and PM peak hour traffic volumes were added to Buildout Alternative 1 peak hour traffic volumes between study area intersections within Carlsbad and the results are shown in **Table 8-2**.

As shown in this table, all evaluated street segments within Carlsbad would operate acceptably with project traffic added to Buildout Alternative 1 peak hour volumes on roadway segments between intersections.

TABLE 8-2

Buildout Alternative 1 Street Segment Levels of Service

Within Carlsbad

			AM PEAK HOUR			PM PEAK HOUR		
Segment	D	Lanes	Peak Hour Volume	V / C (1)	LOS	Peak Hour Volume	V / C (1)	LOS
<u>El Camino Real</u>								
SR-78 EB Ramps - Plaza Dr.	NB	3	1,175	0.22	A	2,360	0.44	A
	SB	3	1,780	0.33	A	1,825	0.34	A
Plaza Dr. - Marron Rd.	NB	3	1,152	0.21	A	2,066	0.38	A
	SB	3	1,527	0.28	A	1,567	0.29	A
Marron Rd. - Carlsbad Village Dr.	NB	3	1,069	0.20	A	1,841	0.34	A
	SB	3	1,494	0.28	A	1,365	0.25	A
Carlsbad Village Dr. - Chestnut Ave.	NB	3	864	0.16	A	1,712	0.32	A
	SB	3	1,451	0.27	A	1,144	0.21	A
<u>College Blvd.</u>								
Lake Blvd. - Carlsbad Village Dr.	NB	2	1,213	0.34	A	1,868	0.52	A
	SB	2	1,800	0.50	A	1,360	0.38	A
Carlsbad Village Dr. - Cannon Rd.	NB	2	651	0.18	A	1,878	0.52	A
	SB	2	1,516	0.42	A	1,090	0.30	A
<u>Marron Rd.</u>								
Monroe Ave. - El Camino Real	EB	2	168	0.05	A	731	0.20	A
	WB	2	205	0.06	A	501	0.14	A
El Camino Real - Rancho Del Oro Rd.	EB	2	681	0.19	A	698	0.19	A
	WB	2	408	0.11	A	1,059	0.29	A
Rancho Del Oro Rd. - Quarry Creek (Street B)	EB	2	439	0.12	A	919	0.26	A
	WB	2	601	0.17	A	898	0.25	A
<u>Carlsbad Village Dr.</u>								
El Camino Real - Avenida De Anita	EB	2	243	0.07	A	542	0.15	A
	WB	2	763	0.21	A	407	0.11	A
Tamarack Ave. - College Blvd.	EB	2	431	0.12	A	457	0.13	A
	WB	2	460	0.13	A	513	0.14	A

D = Direction

(1) = Based on 1,800 vehicles per lane per hour.

V / C = Volume divided by capacity

Source: Highest Approach Volumes at Intersections, taken from Figure 8-7.

V/C	LOS
0.00-0.60	A
0.61-0.70	B
0.71-0.80	C
0.81-0.90	D
0.91-1.00	E
Over 1.00	F

8.3 INTERSECTIONS

The Oceanside Circulation Element Update April 2012 Final Program EIR includes peak hour volumes at intersections for their base condition, which used the same SANDAG Series 11 Combined North County Model as the base forecast that was used for the Buildout Alternative 1 forecast volumes, but without the full Quarry Creek Master Plan included. That Final EIR was used to prepare the peak hour volumes at intersections within the study area, with adjustments to add project only peak hour traffic.

Figure 8-5 shows the project only AM and PM peak hour traffic volumes for each traffic movement at study area intersections. These vehicle trips were distributed based on the trip distribution percentages previously shown in Figure 8-1.

Figure 8-6 displays the base Buildout Alternative 1 intersection peak hour volumes, without project traffic.

Figure 8-7 includes project only peak hour traffic added to the base Buildout Alternative 1 traffic.

Figure 8-8 shows intersection lane configurations for Buildout Alternative 1 conditions.

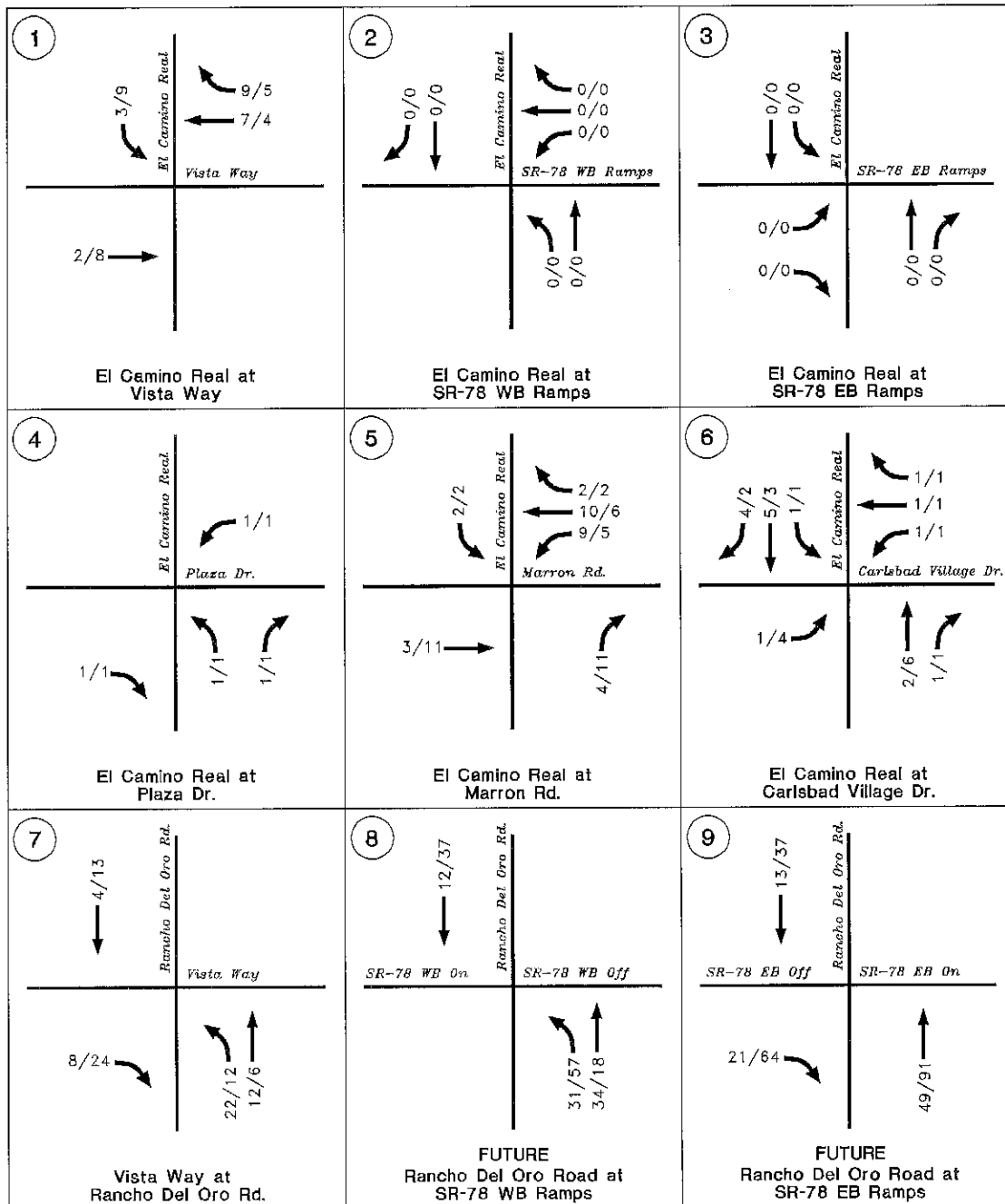


FIGURE 8-5
Project Only AM/PM Peak Hour Volumes - Alternative 1
With RDO Interchange / With RDO Extension / With Marron Road



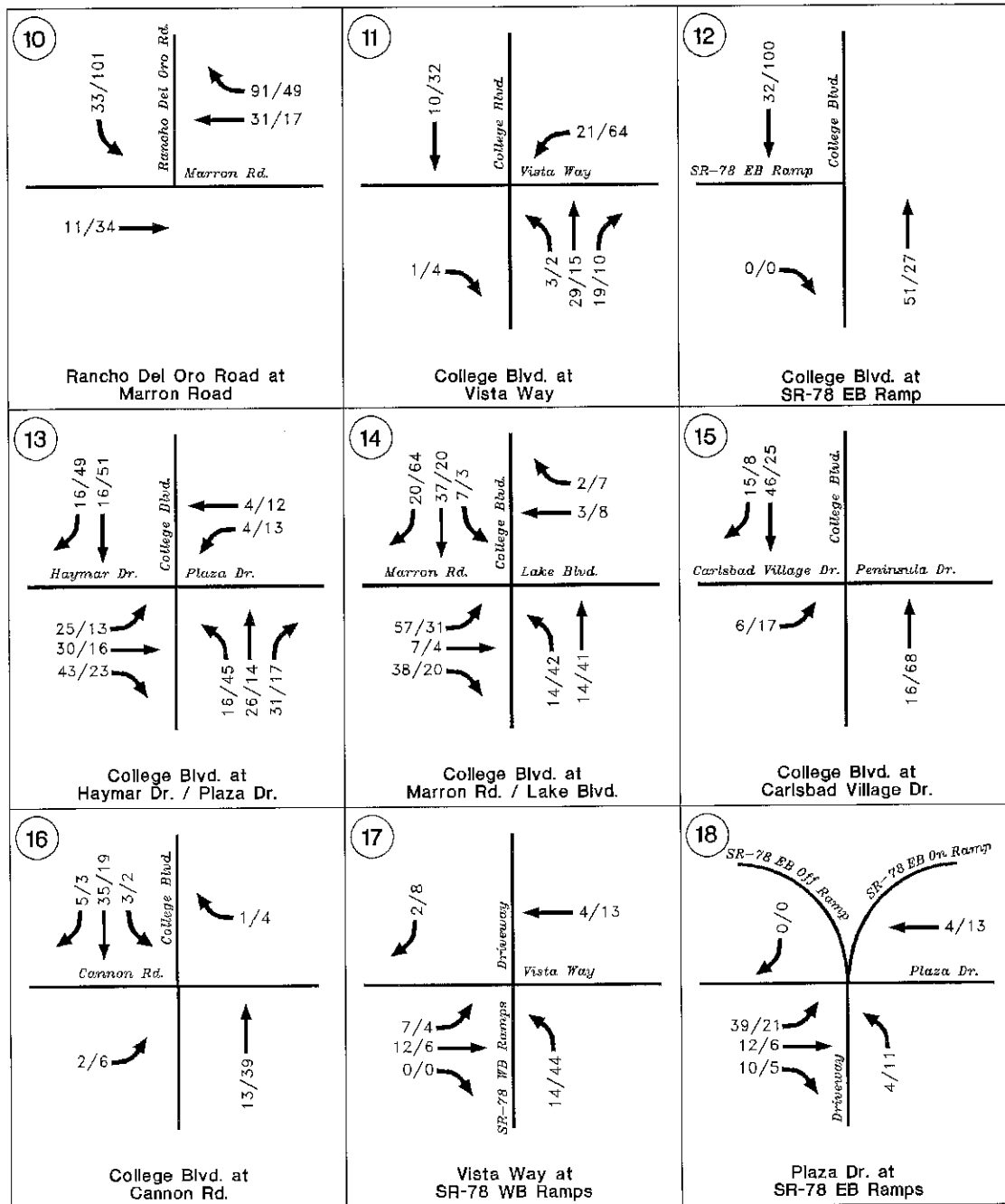


FIGURE 8-5
Project Only AM/PM Peak Hour Volumes - Alternative 1
With RDO Interchange / With RDO Extension / With Marron Road



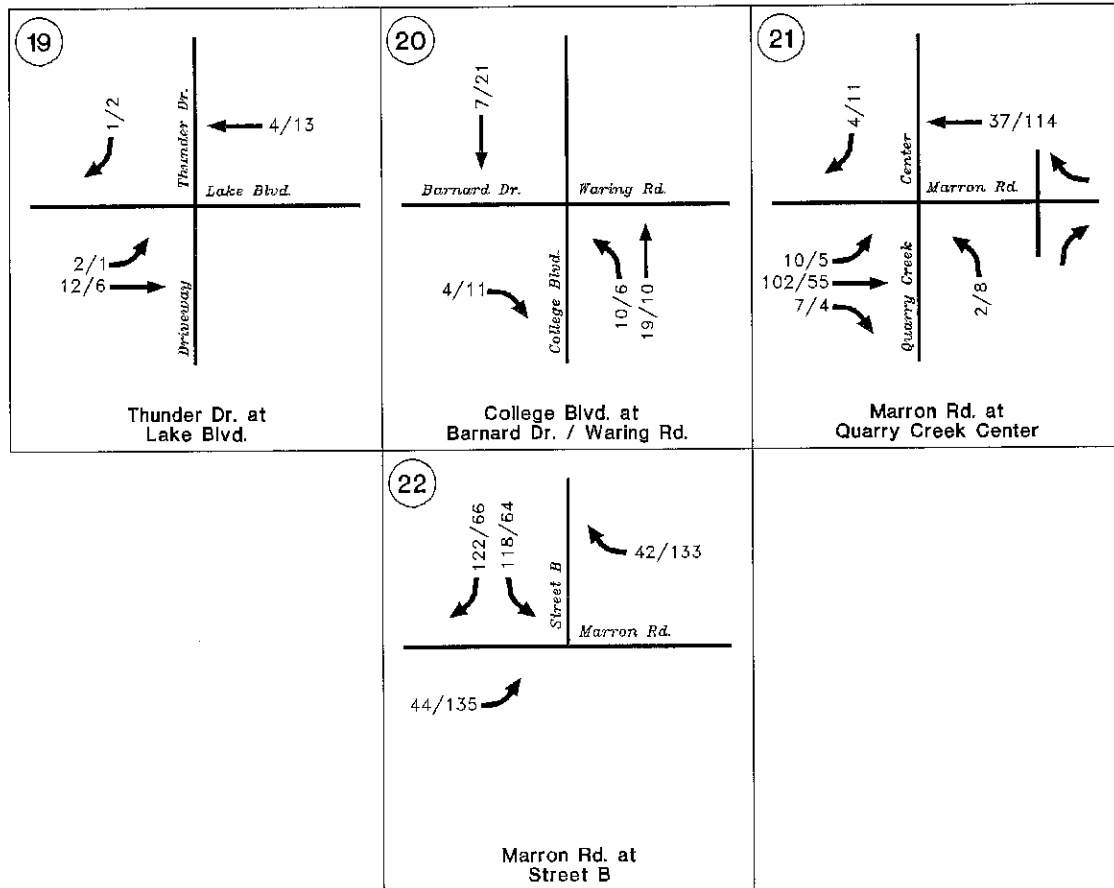


FIGURE 8-5
 Project Only AM/PM Peak Hour Volumes - Alternative 1
 With RDO Interchange / With RDO Extension / With Marron Road



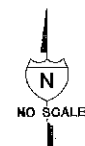
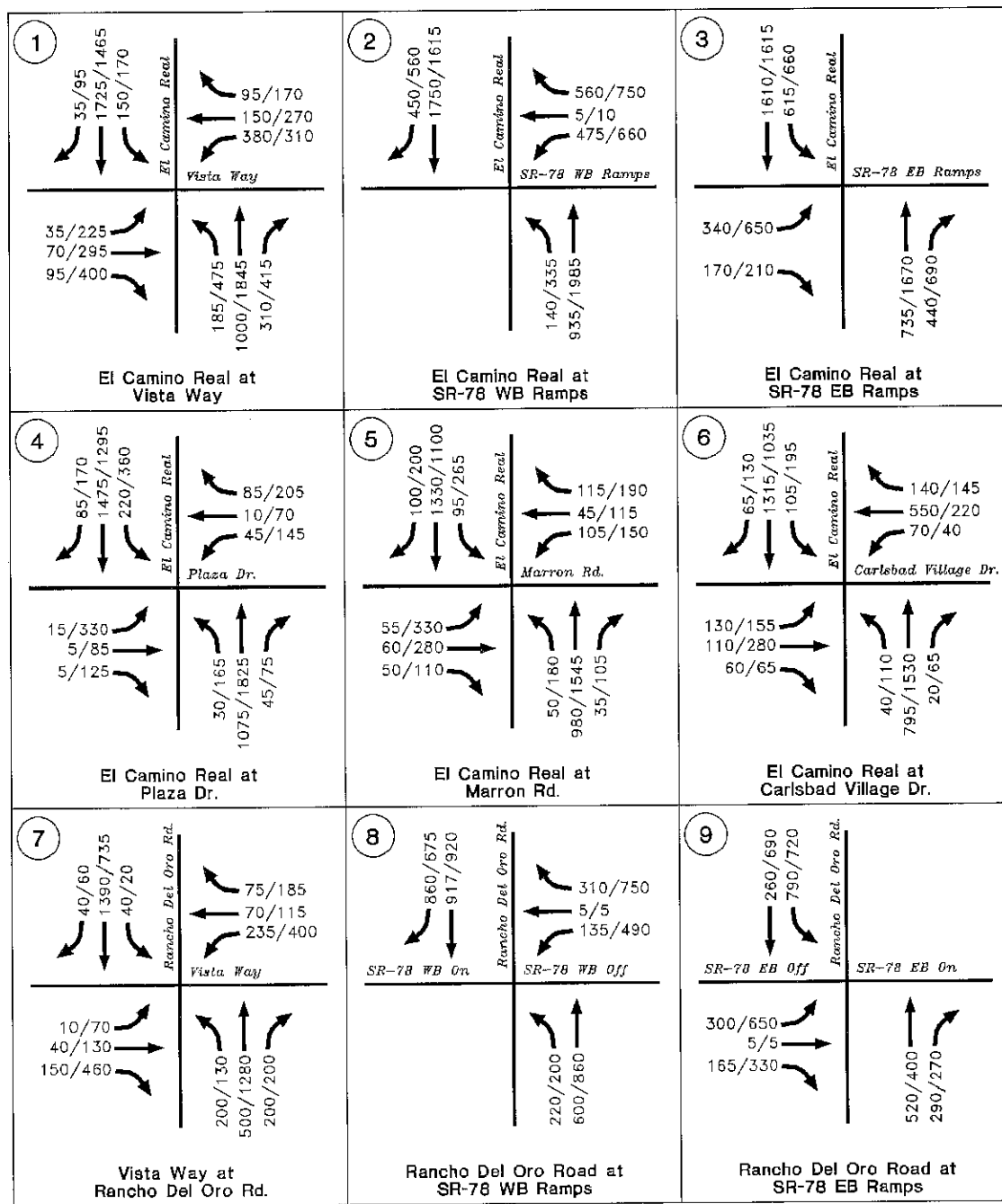


FIGURE 8-6
Buildout Without Project AM/PM Peak Hour Volumes - Alternative 1

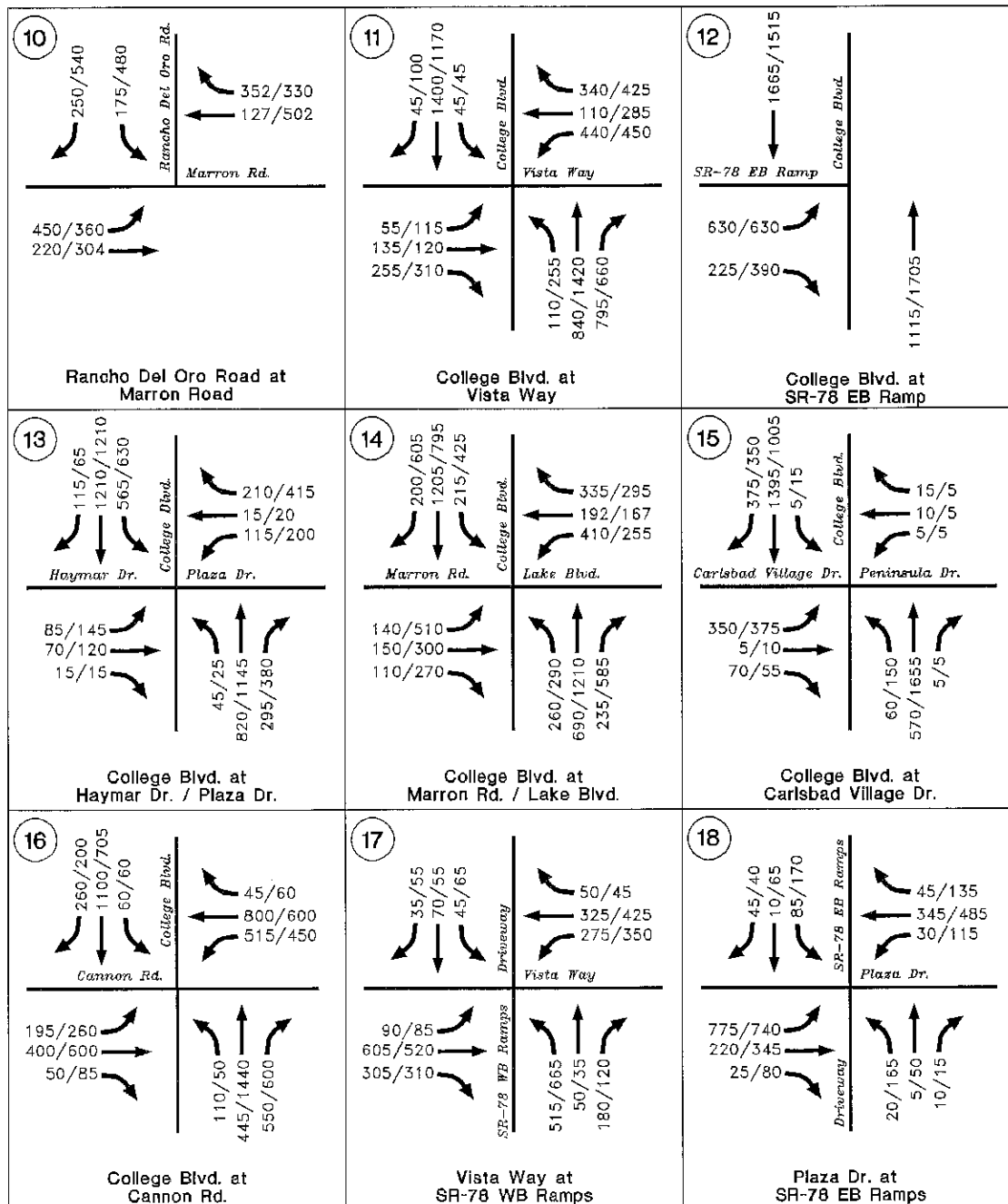


FIGURE 8-6
Buildout Without Project AM/PM Peak Hour Volumes - Alternative 1

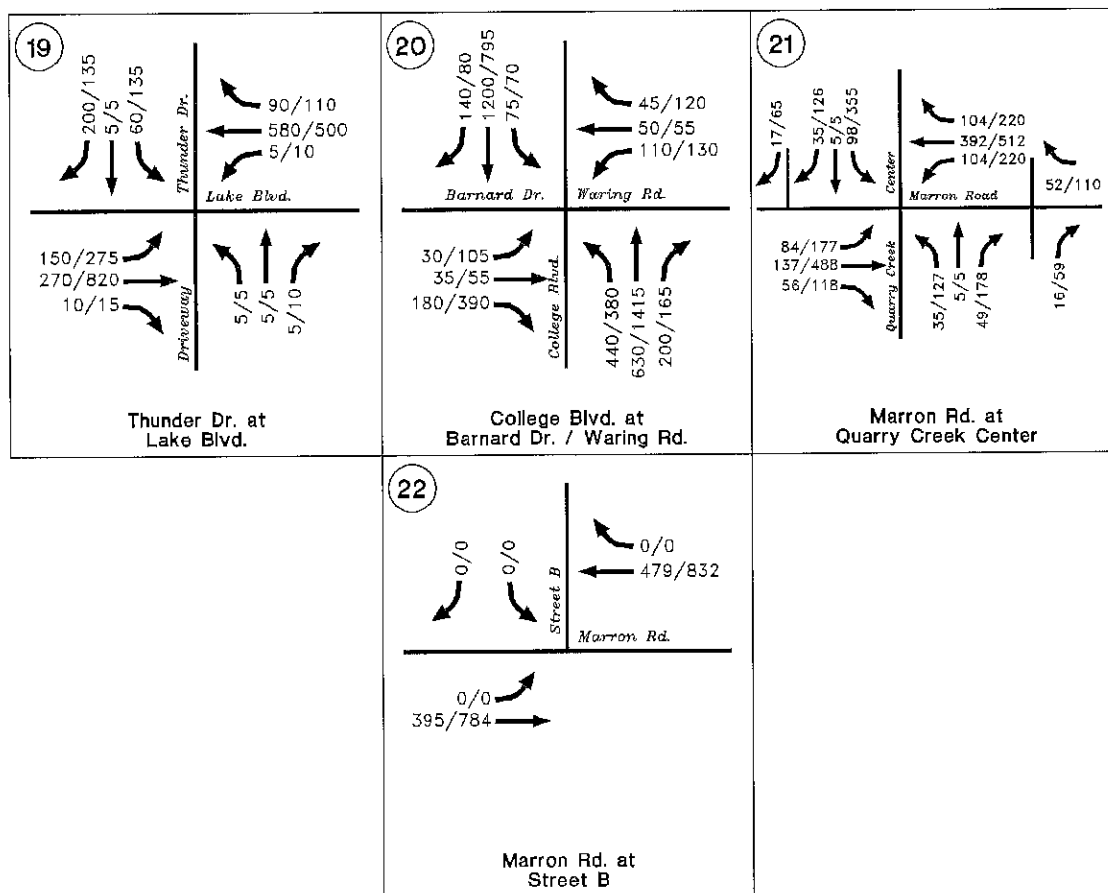


FIGURE 8-6
Buildout Without Project AM/PM Peak Hour Volumes - Alternative 1

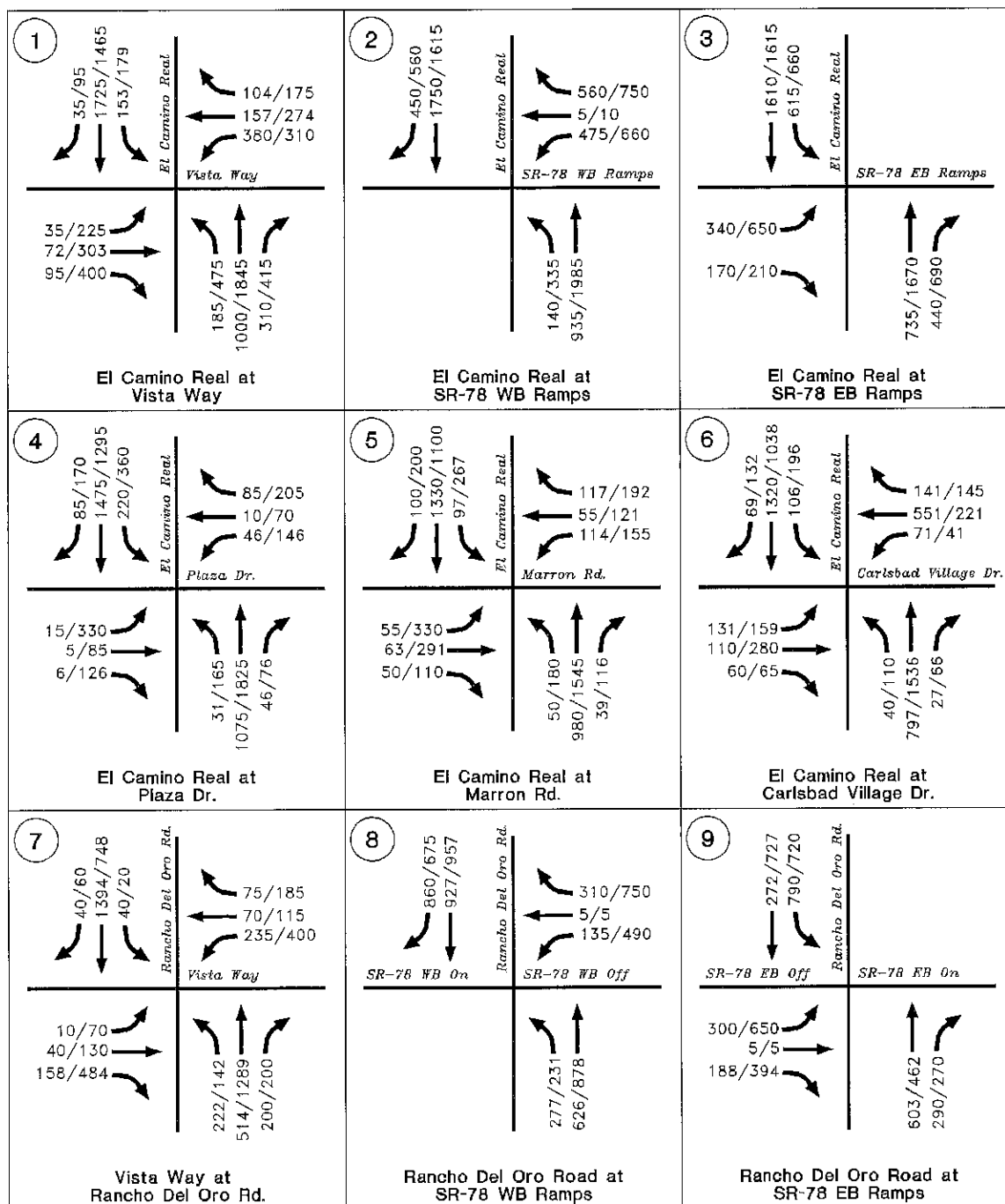


FIGURE 8-7
Buildout With Project AM/PM Peak Hour Volumes - Alternative 1

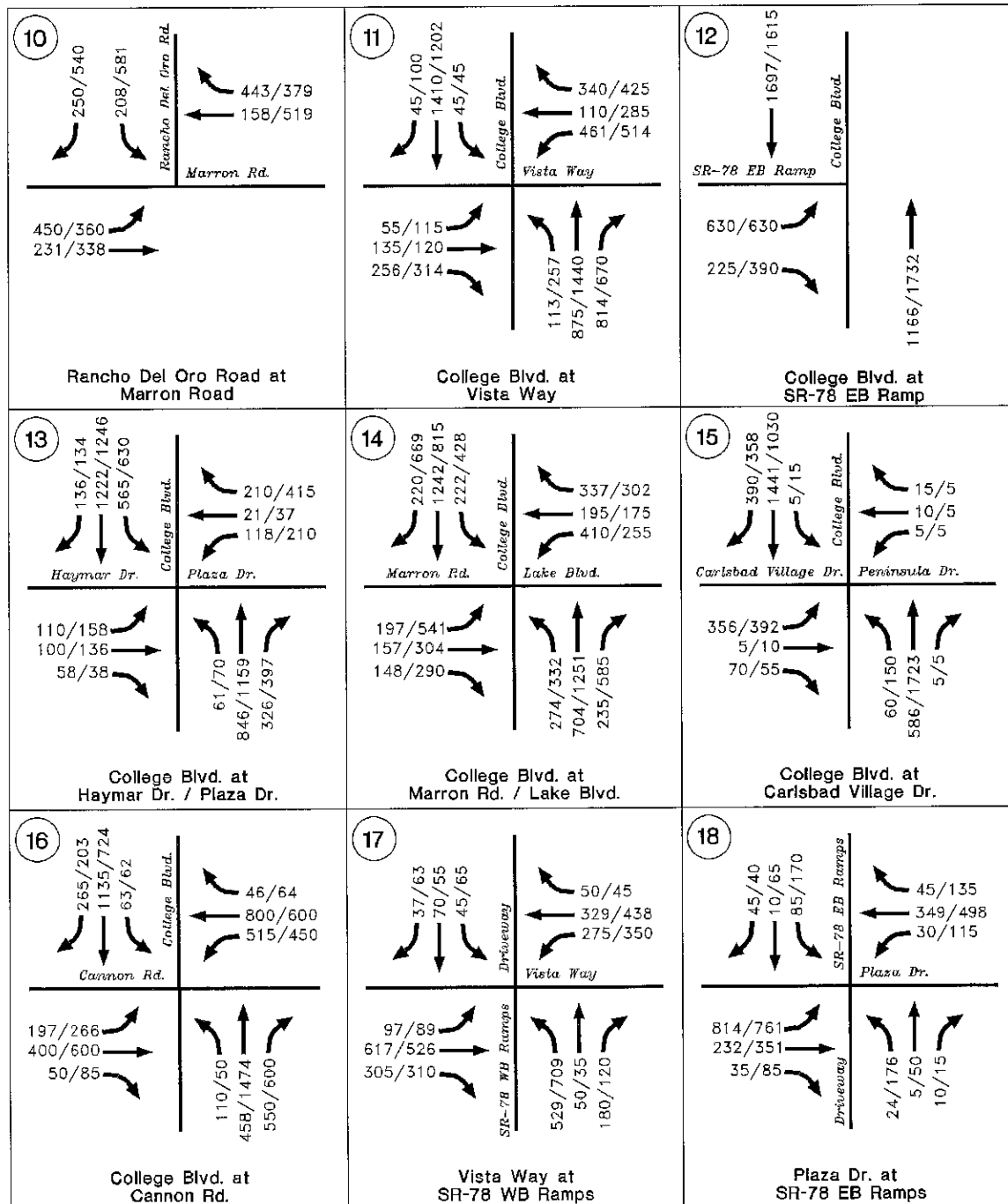


FIGURE 8-7
Buildout With Project AM/PM Peak Hour Volumes - Alternative 1

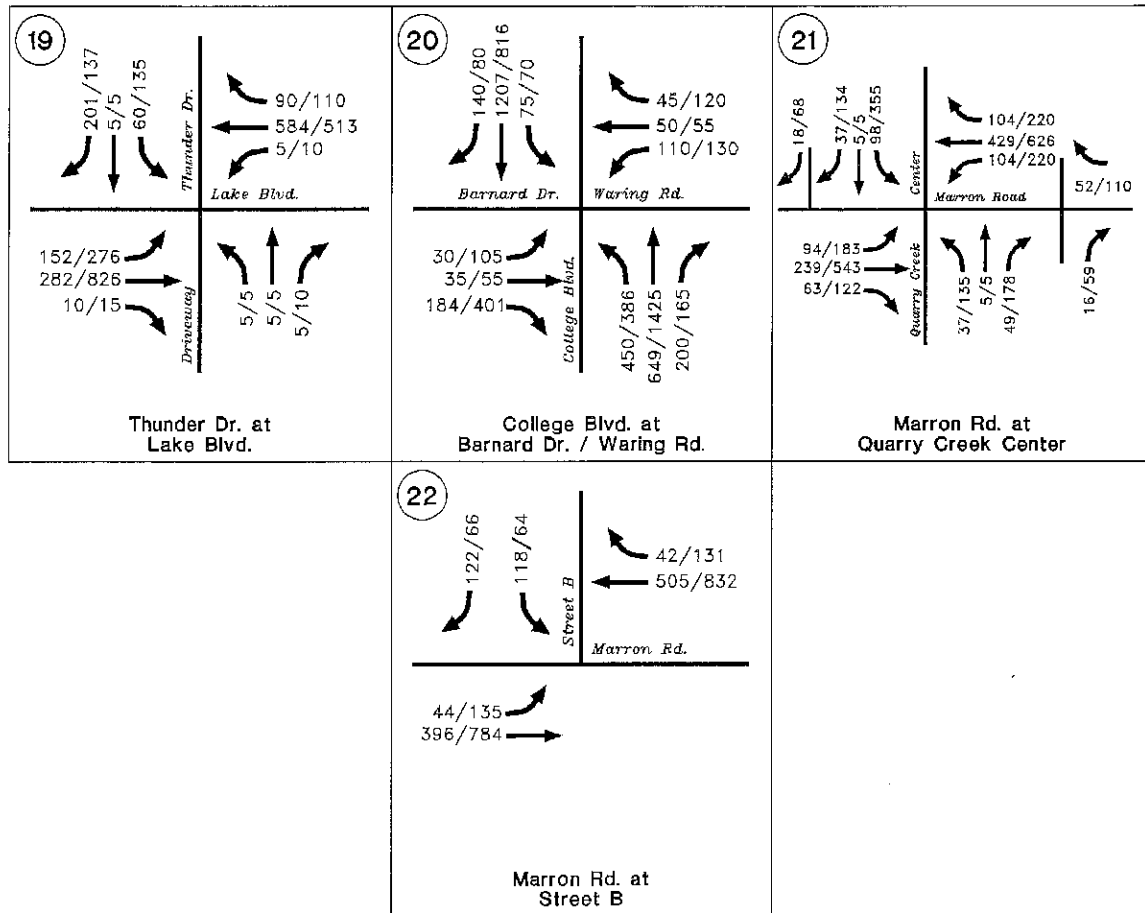


FIGURE 8-7
Buildout With Project AM/PM Peak Hour Volumes - Alternative 1

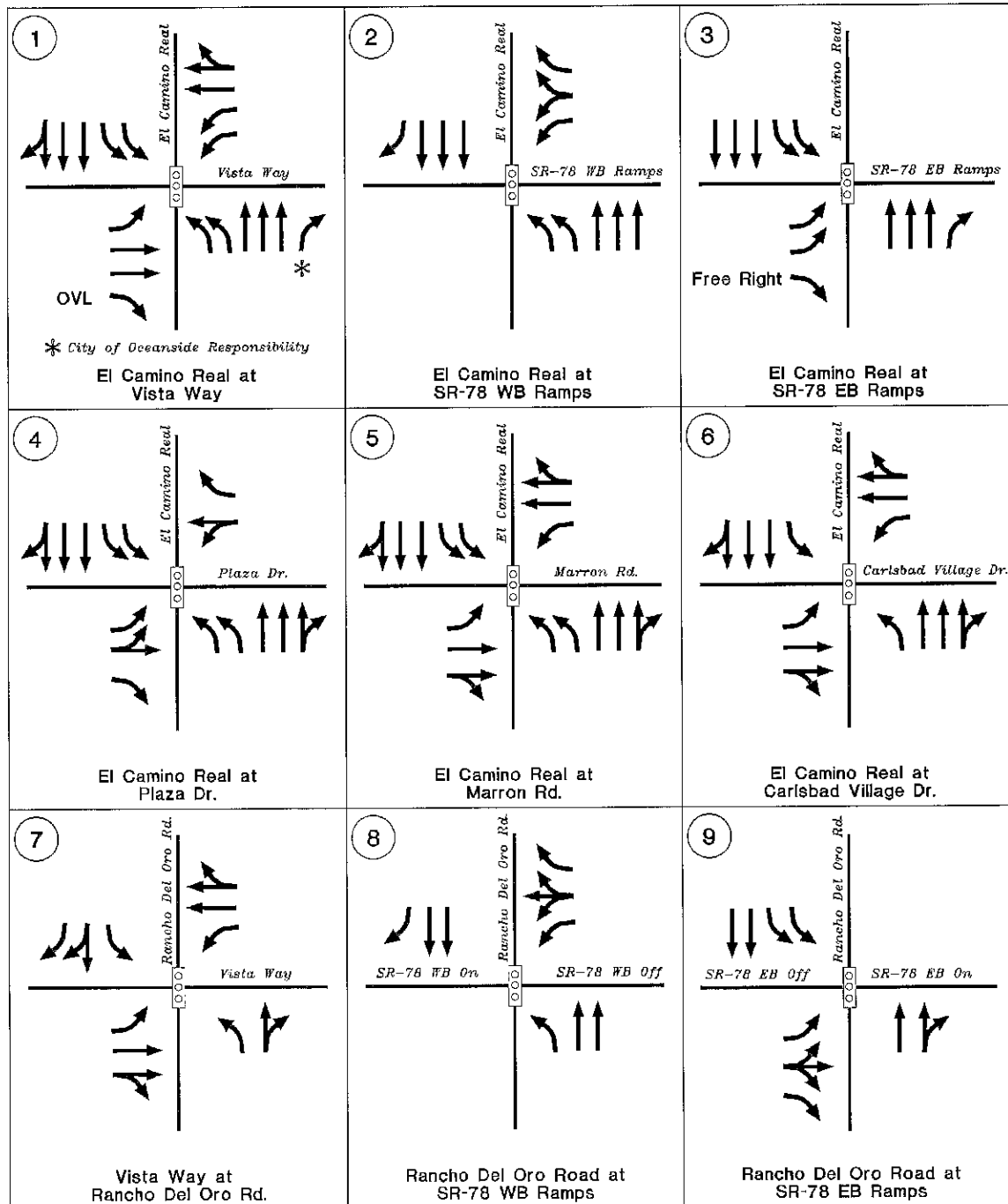


FIGURE 8-8
Buildout Alternative 1 Lane Configurations

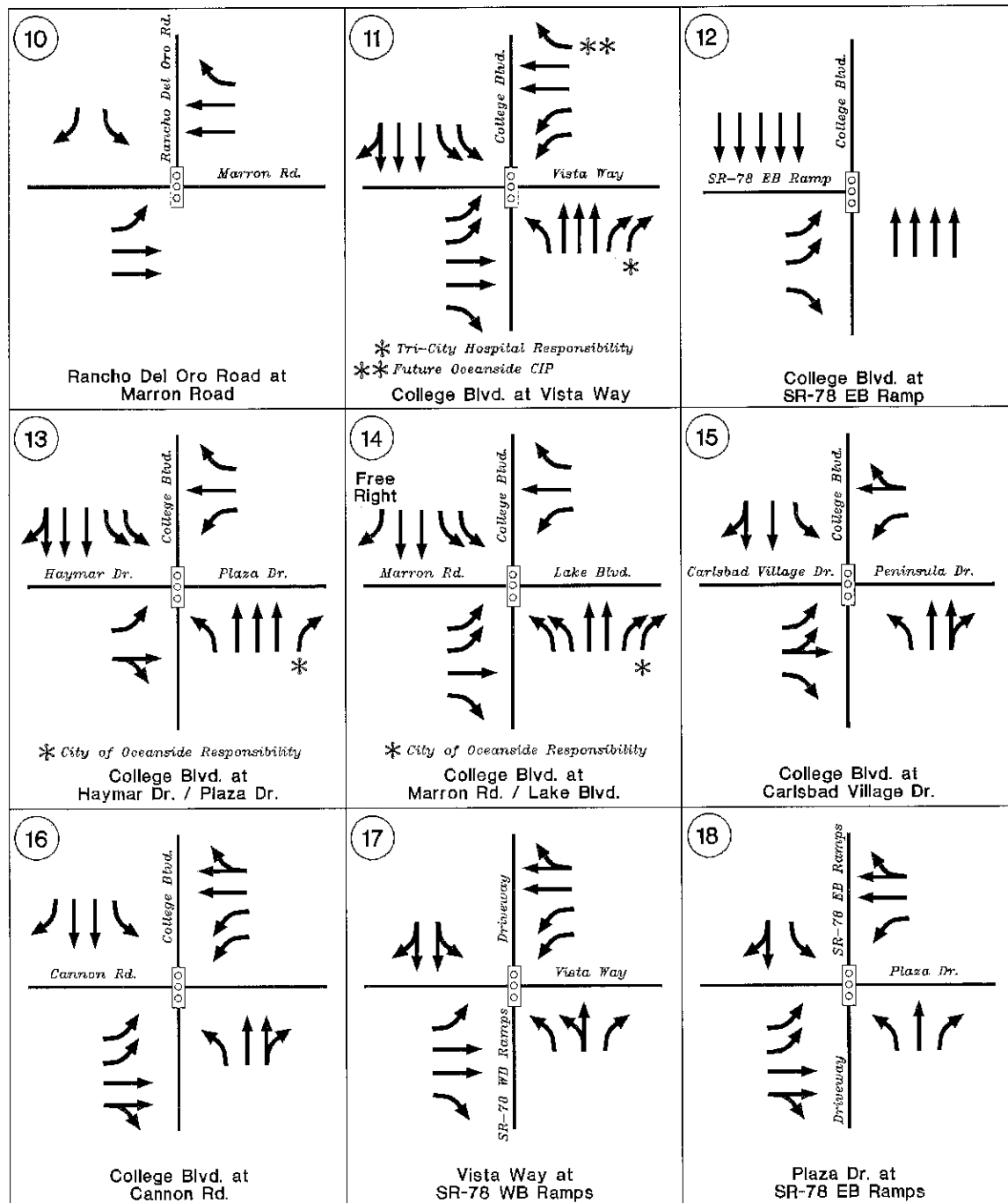


FIGURE 8-8
Buildout Alternative 1 Lane Configurations

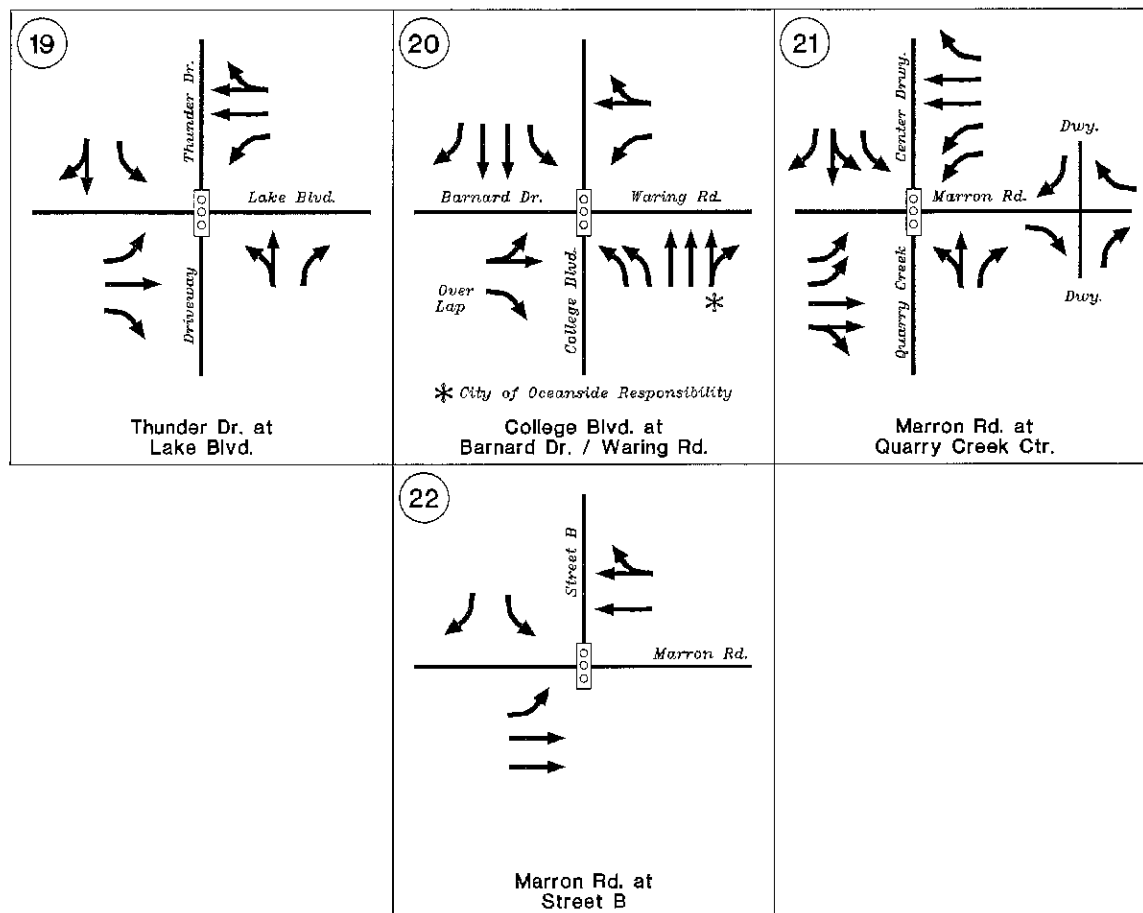


FIGURE 8-8
Buildout Alternative 1 Lane Configurations

Table 8-3 compares the peak hour intersection levels of service without and with project traffic added to Buildout Alternative 1 peak hour volumes. Also included in this table is the change in control delay at each intersection due to the addition of project traffic. An increase in average control delay greater than 2.0 seconds, at level of service E or F, indicates a significant project impact.

The intersection lane configurations for the intersections listed in Table 8-3 are the same as for existing conditions and do not include planned mitigation by the City of Oceanside as a result of other traffic studies.

Only two intersections are expected to operate at level of service “E” under Buildout Alternative 1 conditions.

- El Camino Real / Vista Way is at level of service “E” during the PM peak hour without or with project traffic. The change in average control delay is not greater than 2.0 seconds, at 0.4 seconds, so that project impacts are less than significant and no project mitigation is required.

Table 8-3-A lists the five intersections with planned but mostly unfunded improvements by the City of Oceanside, including the El Camino Real / Vista Way intersection. The addition of a northbound right-turn-only lane on College Boulevard to eastbound Vista Way would mitigate the deficient level of service at the location.

- College Boulevard / Marron Road – Lake Boulevard is at level of service “E” during the PM peak hour without or with project traffic. The change in average control delay with the addition of project traffic is greater than 2.0 seconds so that the project would have a significant cumulative impact. A project fair share contribution towards mitigation is recommended. The project fair share is 13.3%

Table 8-3

Alternative 1 Intersection Levels of Service

Number	Intersection	Alternative 1 Without Project				Alternative 1 With Project							
		AM Peak Hour		PM Peak Hour		AM Peak Hour				PM Peak Hour			
		D	LOS	D	LOS	D	LOS	Δ D	S ?	D	LOS	Δ D	S ?
1 OS	El Camino Real / Vista Way	37.2	D	58.8	E	37.3	D	0.1	N	59.2	E	0.4	N
2 OS	El Camino Real / SR-78 WB Ramps	28.6	C	40.7	D	28.6	C	0.0	N	40.7	D	0.0	N
3 OS	El Camino Real / SR-78 EB Ramps	18.0	B	44.0	D	18.0	B	0.0	N	44.0	D	0.0	N
4 CB	El Camino Real / Plaza Dr.	9.6	A	43.6	D	9.7	A	0.1	N	43.7	D	0.1	N
5 CB	El Camino Real / Marron Rd.	14.9	B	40.3	D	15.4	B	0.5	N	40.9	D	0.6	N
6 CB	El Camino Real / Carlsbad Village Dr.	34.5	C	37.6	D	34.9	C	0.4	N	37.9	D	0.3	N
7 OS	Vista Way / Rancho Del Oro Rd.	30.6	C	49.4	D	31.3	C	0.7	N	51.1	D	1.7	N
8 OS	Rancho Del Oro Rd. / SR-78 WB Ramps	41.1	D	32.7	C	41.1	D	5.0	N	33.5	C	0.8	N
9 OS	Rancho Del Oro Rd. / SR-78 EB Ramps	29.6	C	32.5	C	29.9	C	0.3	N	33.7	C	1.2	N
10 CB	Marron Rd. / Rancho Del Oro Rd.	15.0	B	21.9	C	15.0	B	0.0	N	29.7	C	7.8	N
11 OS	College Blvd. / Vista Way	26.6	C	32.6	C	28.2	C	1.6	N	34.1	C	1.5	N
12 OS	College Blvd. / SR-78 EB Off Ramp	9.7	A	10.3	B	9.8	A	0.0	N	10.4	B	0.1	N
13 OS	College Blvd. / Plaza Dr.	21.8	C	33.0	C	24.5	C	2.7	N	37.5	D	4.5	N
14 OS	College Blvd. / Marron Rd. / Lake Blvd.	37.4	D	58.9	E	40.0	D	2.6	N	63.5	E	4.6	Y
15 CB	College Blvd. / Carlsbad Village Dr.	25.7	C	27.4	C	31.5	C	5.8	N	33.3	C	5.9	N
16 CB	College Blvd. / Cannon Rd.	41.0	D	47.2	D	43.2	D	2.2	N	49.8	C	2.6	N
17 OS	Vista Way / SR-78 WB Ramps	32.5	C	36.8	D	32.6	C	0.1	N	38.6	D	1.8	N
18 OS	Plaza Dr. / SR-78 EB Ramps	17.1	B	36.4	D	17.2	B	0.2	N	37.4	D	1.0	N
19 OS	Lake Blvd. / Thunder Dr.	31.2	C	32.3	C	31.3	C	0.1	N	32.5	C	0.2	N
20 OS	College Blvd. / Waring Rd.	27.7	C	31.9	C	28.4	C	0.7	N	32.1	C	0.2	N
21 OS	Marron Rd. / Quarry Creek Ctr.	21.9	C	34.7	C	22.9	C	1.0	N	36.2	D	1.5	N
22 CB	Marron Rd. / Street B	N/A	N/A	N/A	N/A	14.2	B	N/A	N	15.6	B	N/A	N

Notes:

N/A = Not Built

City:

OS = Oceanside

CB = Carlsbad

D = Control Delay

LOS = Level of Service

Δ D = Change in Delay

S ? = Significant Impact: Yes (Y) or No (N). (Significant at LOS E or F and change in delay is greater than 2.0 seconds)

LOS	SECONDS DELAY
A	0.0-10.0
B	10.1-20.0
C	20.1-35.0
D	35.1-55.0
E	55.1-80.0
F	Over 80.0

Table 8-3-A
Alternative 1 Intersection Levels of Service
(With Planned but Unfunded Improvements)

Number	Intersection	Alternative 1 Without Project				Alternative 1 With Project							
		AM Peak Hour		PM Peak Hour		AM Peak Hour				PM Peak Hour			
		D	LOS	D	LOS	D	LOS	Δ D	S ?	D	LOS	Δ D	S ?
1 OS	El Camino Real / Vista Way (1)	36.3	D	45.1	D	36.3	D	0.0	N	45.6	D	0.5	N
11 OS	College Blvd. / Vista Way (2)	19.7	B	32.9	C	20.0	B	0.3	N	34.4	C	1.5	N
13 OS	College Blvd. / Plaza Dr. (3)	20.7	C	29.8	C	23.1	C	2.4	N	35.2	D	5.4	N
14 OS	College Blvd. / Marron Rd. / Lake Blvd. (4)	37.4	D	50.1	D	40.0	D	0.0	N	55.0	D	4.9	N
20 OS	College Blvd. / Waring Rd. (5)	27.7	C	30.7	C	28.4	C	0.7	N	30.9	C	0.2	N

- (1) = Add a Northbound Right-Turn-Only lane on El Camino Real to Eastbound Vista Way.
(2) = Add a second Northbound Right-Turn-Only lane on College Blvd. to Eastbound Vista Way. Add a Westbound Right-Turn-Only lane to Northbound College Blvd.
(3) = Add a Northbound Right-Turn-Only lane on College Blvd. to Eastbound Plaza Dr.
(4) = Add a second Northbound Right-Turn-Only lane on College Blvd. to Eastbound Lake Blvd.
(5) = Restripe Northbound Right-Turn-Only lane for a third Northbound shared Through-Right Turn lane. Widen far-side College Blvd. to accept the added Northbound through lane.

Notes:

N/A = Not Built

City:

OS = Oceanside

CB = Carlsbad

D = Control Delay

LOS = Level of Service

Δ D = Change in Delay

S ? = Significant Impact: Yes (Y) or No (N). (Significant at LOS E or F and change in delay is greater than 2.0 seconds)

LOS	SECONDS DELAY
A	0.0-10.0
B	10.1-20.0
C	20.1-35.0
D	35.1-55.0
E	55.1-80.0
F	Over 80.0

The planned but unfunded mitigation at this location, as identified in the Oceanside Circulation Element Update FEIR, is the addition of a second northbound right-turn-only lane to eastbound Lake Boulevard. As shown in **Table 8-3-A** the addition of the second right turn only lane provides mitigation for the deficient operation at this location.

The changes or alterations are within the responsibility and jurisdiction of the City of Oceanside. The City of Oceanside does not appear to have adopted a program to construct such improvements and there does not appear to be a program to accept payments in lieu of construction. Due to the fact that the subject impacted segment is located outside the jurisdiction and regulatory authority of the City of Carlsbad, these impacts are considered significant and unmitigable. See CEQA Guidelines Section 15091 (a) (2).

8.4 STATE ROUTE 78 MAINLINES

The project traffic volumes are included in Buildout Alternative 1 SR-78 average daily traffic volumes shown in **Table 8-4**. This table shows freeway volumes without and with project traffic. This table also compares levels of service and volume to capacity (V/C) ratios, and indicates if the project has or has not a significant freeway impact. At levels of service “E” or “F” an increase in V/C ratio of no more than 0.01 is acceptable. As shown in this table, segments at level of service “E” or “F” have V/C increases of less than 0.01 so that the project has less than significant impacts to SR-78 mainlines.

Appendix D includes the Alternative 1 traffic model documentation and intersection levels of service worksheets.

Table 8-4

Buildout Alternative -1 Freeway Segment Levels of Service

WITHOUT PROJECT									
Segment	Lanes (1-Way)	Cap.	ADT	Peak Hour % (1)	Direction Split (1)	Truck Factor (2)	Peak Volume	V/C	LOS (3)
State Route 78									
I-5 to Jefferson St.	3+AUX	8,850	194,800	8	6 : 4	0.95	9,842	1.112	F0
Jefferson St. to El Camino Real	3+AUX	8,850	169,800	8	6 : 4	0.95	8,579	0.969	E
El Camino Real to Rancho Del Oro Rd.	3	7,050	174,200	8	6 : 4	0.95	8,802	1.249	F0
Rancho Del Oro Rd. to College Blvd.	3	7,050	177,500	8	6 : 4	0.95	8,968	1.272	F1
College Blvd. to Emerald Dr.	3	7,050	164,700	8	6 : 4	0.95	8,322	1.180	F0

WITH PROJECT									
Segment	Lanes (1-Way)	Cap.	ADT	Peak Hour % (1)	Direction Split (1)	Truck Factor (2)	Peak Volume	V/C	LOS (3)
State Route 78									
I-5 to Jefferson St.	3+AUX	8,850	195,700	8	6 : 4	0.95	9,888	1.117	F0
Jefferson St. to El Camino Real	3+AUX	8,850	170,700	8	6 : 4	0.95	8,625	0.975	E
El Camino Real to Rancho Del Oro Rd.	3	7,050	175,100	8	6 : 4	0.95	8,847	1.255	F0
Rancho Del Oro Rd. to College Blvd.	3	7,050	177,500	8	6 : 4	0.95	8,968	1.272	F1
College Blvd. to Emerald Dr.	3	7,050	165,300	8	6 : 4	0.95	8,352	1.185	F0

LEVEL OF SERVICE AND V/C COMPARISON						
Segment	V/C With	LOS	V/C Without Project	LOS	Change in V/C	S?
State Route 78						
I-5 to Jefferson St.	1.117	F0	1.112	F0	0.005	N
Jefferson St. to El Camino Real	0.975	E	0.969	E	0.006	N
El Camino Real to Rancho Del Oro Rd.	1.255	F0	1.249	F0	0.006	N
Rancho Del Oro Rd. to College Blvd.	1.272	F1	1.272	F1	0.000	N
College Blvd. to Emerald Dr.	1.185	F0	1.180	F0	0.005	N

Legend:

Cap. = Capacity
Mainlane Cap. @ 2,350 VPHPL
Auxillary Lane Cap. @ 1,800 VPHPL
ADT= Average Daily Traffic
V/C= Volume to Capacity Ratio
LOS= Level of Service
Direction Split = % of Peak Hour in Peak Direction
Truck Factor = Represents Capacity Reduction for Heavy Vehicles

Notes:

- (1) Source: Caltrans 2010 Traffic Volumes.
 - (2) Highway Capacity Manual (2000) EQN. (3-2); assume 5% trucks plus RV's.
 - (3) Caltrans District 11 LOS Estimation Procedures, See Table 2-3
- S? = Significant Impact: Yes (Y), No (N).
(At LOS E or F, an increase in V/C of no more than 0.01 is acceptable).

9.0 BUILDOUT ALTERNATIVE 2

The land uses for the Quarry Creek Master Plan remain the same for Alternative 2 as was used for Alternative 1.

The street network for Alternative 2 is the same as Alternative 1, except for the deletion of Marron Road between the Quarry Creek Master Plan west boundary and the existing extension east of El Camino Real in Carlsbad. The Rancho Del Oro / SR-78 interchange is included, but the Rancho Del Oro extension to the south of the interchange is deleted.

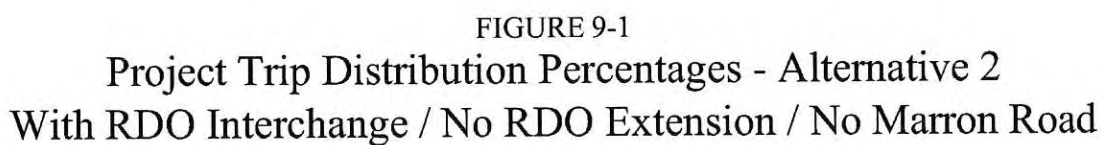
The SANDAG Series 11 Combined North County Traffic Model was used for this alternative, with the street network change described above. A select zone plot was prepared to show project only traffic volumes and to establish the project only trip distribution percentages.

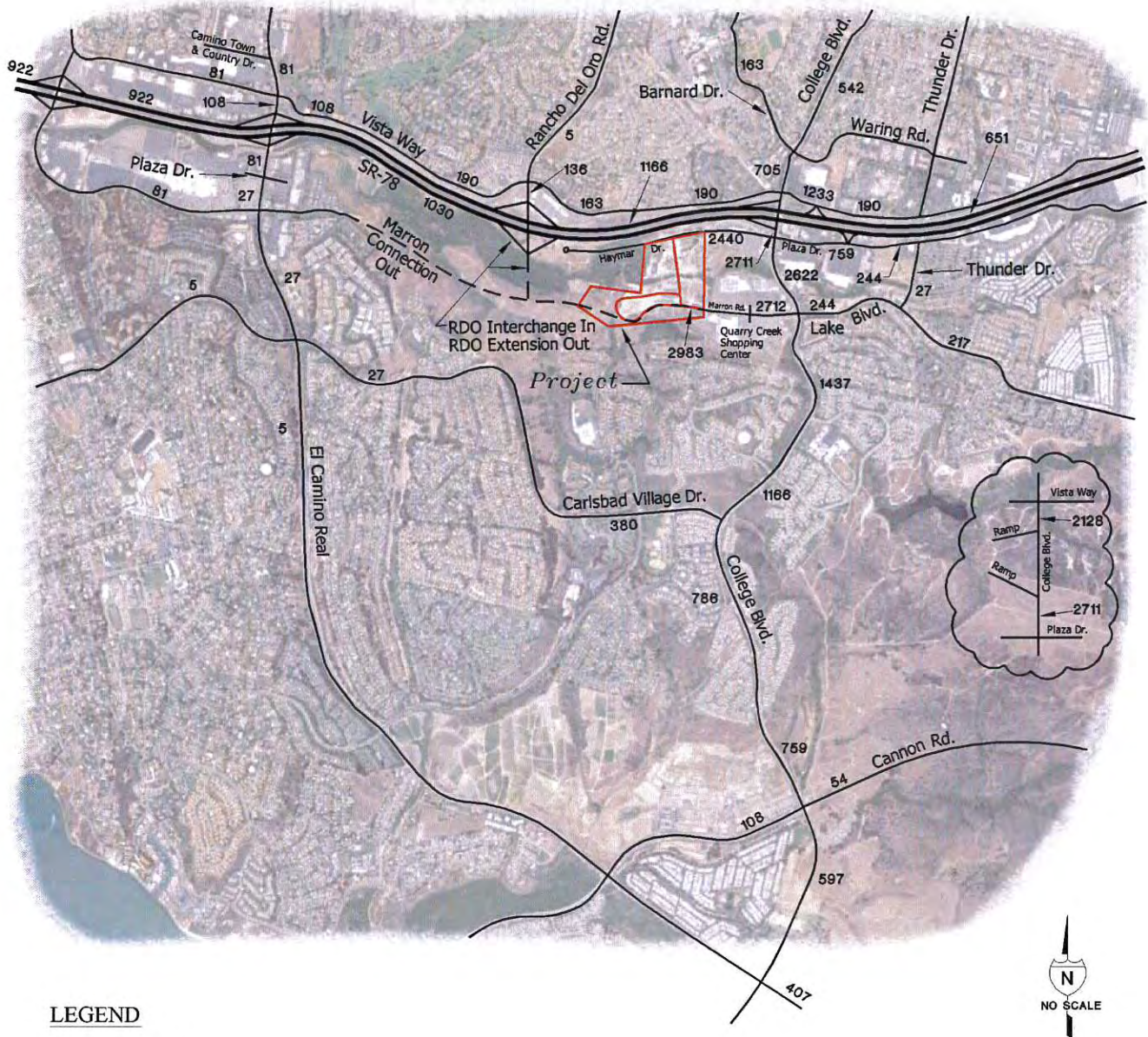
Figure 9-1 shows the project only vehicle trip distribution percentages for Alternative 2.

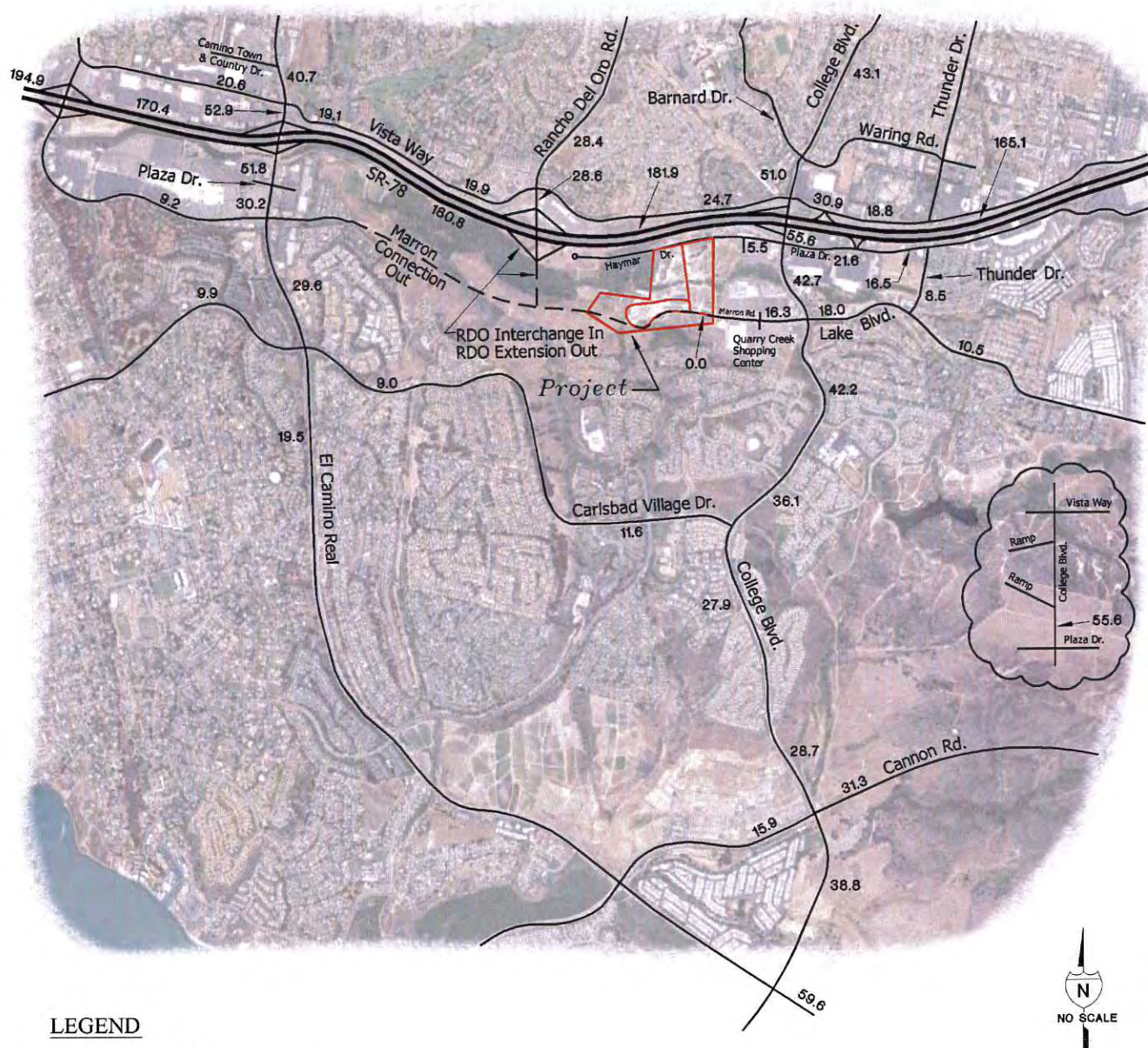
Figure 9-2 includes the project only average daily traffic volumes based on the select zone trip distribution.

Figure 9-3 shows the study area street network with average daily traffic volumes for Alternative 2 without project traffic.

Figure 9-4 includes the Alternative 2 full Buildout average daily traffic volumes with project traffic included.









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9.1 STREET SEGMENTS WITHIN OCEANSIDE

Table 9-1 compares the Buildout Alternative 2 average daily traffic volumes without and with project traffic. The project would have a significant impact to street segments if a segment is at level of service E or F and the increase in volume to capacity ratio due to added project traffic is greater than 0.02. This table indicates that all segments evaluated within Oceanside would operate acceptably with project traffic added except at four locations. As with Alternative 1, these segments would be at LOS F without or with project traffic. The project would have a significant impact at only two of these segments, the same as for the Alternative 1 analysis:

- College Boulevard between Vista Way and Plaza Drive (a six-lane Major Arterial); the project fair share is 20.1%;
- College Boulevard between Marron Road and the southern City limit (a four-lane Major Arterial); the project fair share is 7.3%.

A peak hour segment analysis was conducted for the deficiently operating College Boulevard corridor and the results are shown in **Table 9-1-A**. This analysis indicates one additional segment of this corridor would have a significant project impact.

- College Boulevard (Plaza Drive to Marron Road – Lake Boulevard). The average travel speed decreases by more than one mile per hour with project added, which indicates a significant impact. The project fair share is 28.6%.

Mitigation Recommendations: Since physical improvement are infeasible, the Final, April 2012, City of Oceanside Circulation Element Update EIR recommends reclassification of these segments from a six-lane Major Arterial, and four-lane Major Arterial, to six-lane Prime Arterials. This reclassification and widening would mitigate the project significant impacts.

TABLE 9-1
Buildout Alternative – 2 Street Segment Levels of Service
Within Oceanside

			No Project			Plus Project			
Segment	Current Classification	LOS E Capacity (1)	ADT	(3) LOS	V/C (2)	ADT	(3) LOS	V/C (2)	Δ (4) V/C
<u>El Camino Real</u>									
Via Las Rosas to Vista Way	6-PA	60,000	40,700	C	0.678	40,800	C	0.680	0.002
Vista Way to SR-78 WB Ramps	6-PA	60,000	52,900	D	0.882	53,000	D	0.883	0.001
<u>College Blvd.</u>									
Barnard Dr. to Vista Way	6-MA	50,000	51,000	F	1.020	51,700	F*	1.034	0.014
Vista Way to Plaza Dr.	6-MA	50,000	55,600	F	1.111	58,300	F	1.166	0.055
Plaza Dr. to Marron Rd.	6-MA	50,000	42,700	D	0.854	45,300	D	0.906	0.052
Marron Rd. to South City Limit	4-MA	40,000	42,200	F	1.055	43,600	F	1.090	0.035
<u>Vista Way</u>									
Jefferson St. to El Camino Real	4-SCL	30,000	20,600	D	0.687	20,700	D	0.690	0.003
El Camino Real to Rancho Del Oro Rd.	4-SCL	30,000	19,900	C	0.663	20,100	D	0.670	0.007
Rancho Del Oro Rd. to College Blvd.	4-SCL	30,000	24,700	D	0.823	24,900	D	0.830	0.007
College Blvd. to SR-78 WB Ramps	4-SCL	30,000	30,900	F	1.030	32,100	F	1.070	0.040
SR-78 WB Ramps to Thunder Dr.	4-SCL	30,000	18,800	C	0.627	19,000	C	0.633	0.006
<u>Marron Rd. / Lake Blvd.</u>									
Quarry Creek Driveway to College Blvd.	4-SCL	30,000	16,300	C	0.543	19,000	C	0.633	0.090
College Blvd. to Thunder Dr.	4-SCL	30,000	18,000	C	0.600	18,200	C	0.607	0.007
Thunder Dr. to Sundown Ln.	2-CL	15,000	10,500	D	0.700	10,700	D	0.713	0.013
<u>Haymar Dr. / Plaza Dr.</u>									
R1 Driveway to College Blvd.	2-C	10,000	5,500	B	0.550	8,000	D	0.800	0.250
College Blvd. to SR-78 EB Ramps	4-SCL	30,000	21,600	D	0.720	22,400	D	0.747	0.027
SR-78 EB Ramps to Thunder Dr.	4-SCL	30,000	16,500	C	0.550	16,700	C	0.557	0.007
<u>Rancho Del Oro Rd.</u>									
Vista Way to Tournament Dr.	4-MA	40,000	27,800	C	0.695	27,800	C	0.695	0.000

NOTES:

- Capacity of roadway at LOS E per City of Oceanside Master Transportation Plan, April 2012, Table 3-1.
 - V/C = Volume to capacity at LOS E ratio; Δ V/C = Change in V/C.
 - LOS = Level of service.
 - Δ V/C = Change in V/C: A significant impact occurs at LOS "E" or "F" and the change in V/C ratio is greater than 0.02.
- * = Not significant since the change in V/C ratio is no more than 0.02.

TABLE 9-1-A
Buildout Alternative 2
Deficient Segment Peak Hour Analysis

Segment	From / To		AM Peak Hour				PM Peak Hour			
			Speed (MPH)		LOS		Speed (MPH)		LOS	
			W/O	With	W/O	With	W/O	With	W/O	With
College Boulevard	Waring Road to Vista Way	NB	20.6	20.5	D	D	9.0	8.5	F	F
		SB	16.7	16.7	E	E	12.4	12.0	F	F
College Boulevard	Vista Way to Plaza Drive	NB	31.2	31.2	B	B	19.4	19.2	D	D
		SB	31.3	31.3	B	B	14.5	13.9	E	E
College Boulevard	Plaza Drive to Lake Blvd.	NB	17.8	16.6	D	E	12.8	10.7	F	F
		SB	17.2	17.3	D	D	18.3	18.2	D	D
Vista Way	College Blvd. to SR-78 WB Ramps	EB	5.4	5.4	F	F	6.0	6.1	F	F
		WB	9.4	9.4	F	F	9.8	9.7	F	F

Notes:

At LOS "E" or "F", if the segment travel speed decreases by more than one MPH due to the addition of project traffic, the project will have a significant impact.

*Shading indicates a significant impact.

However, the Oceanside Update considers roadway reclassification as infeasible, so that the Oceanside Update Final EIR recommends adoption of Overriding Considerations.

The changes or alterations are within the responsibility and jurisdiction of the City of Oceanside. The City of Oceanside does not appear to have adopted a program to construct such improvements and there does not appear to be a program to accept payments in lieu of construction. Due to the fact that the subject impacted segment is located outside the jurisdiction and regulatory authority of the City of Carlsbad, these impacts are considered significant and unmitigable. See CEQA Guidelines Section 15091 (a) (2).

- Vista Way, between College Boulevard and the SR-78 westbound ramps. This segment is at level of service “F” without or with project traffic added. The project change in volume to capacity ratio is greater than 0.02, at 0.04, so that this is a significant cumulative project impact.

The Oceanside Circulation Element Update recommends providing a westbound dedicated right-turn lane and lengthening the westbound left-turn lanes at the College Boulevard / Vista Way intersection by restriping the existing lanes. As stated in the update, these improvements would not fully mitigate segment impacts so that overriding considerations should be adopted.

The changes or alterations are within the responsibility and jurisdiction of the City of Oceanside. The City of Oceanside does not appear to have adopted a program to construct such improvements and there does not appear to be a program to accept payments in lieu of construction. Due to the fact that the subject impacted segment is located outside the jurisdiction and regulatory authority of the City of Carlsbad, these impacts are considered significant and unmitigable. See CEQA Guidelines Section 15091 (a) (2).

9.2 STREET SEGMENTS WITHIN CARLSBAD

Project only AM and PM peak hour traffic volumes were added to Buildout Alternative 2 peak hour traffic volumes between study area intersections within Carlsbad and the results are shown in **Table 9-2**.

As shown, and the same as Alternative 1, all evaluated street segments within Carlsbad would operate acceptably, and project impacts would be less than significant to Carlsbad roadway segments.

TABLE 9-2
Buildout Alternative 2 Street Segment Levels of Service
Within Carlsbad

			AM PEAK HOUR			PM PEAK HOUR		
Segment	D	Lanes	Peak Hour Volume	V / C (1)	LOS	Peak Hour Volume	V / C (1)	LOS
<u>El Camino Real</u>								
SR-78 EB Ramps - Plaza Dr.	NB	3	1,330	0.25	A	2,577	0.48	A
	SB	3	1,851	0.34	A	1,918	0.36	A
Plaza Dr. - Marron Rd.	NB	3	1,292	0.24	A	2,267	0.42	A
	SB	3	1,562	0.29	A	1,606	0.30	A
Marron Rd. - Carlsbad Village Dr.	NB	3	1,202	0.22	A	2,026	0.38	A
	SB	3	1,496	0.28	A	1,382	0.26	A
Carlsbad Village Dr. - Chestnut Ave.	NB	3	861	0.16	A	1,711	0.32	A
	SB	3	1,486	0.27	A	1,156	0.21	A
<u>College Blvd.</u>								
Lake Blvd. - Carlsbad Village Dr.	NB	2	1,177	0.33	A	2,024	0.56	A
	SB	2	1,875	0.52	A	1,323	0.37	A
Carlsbad Village Dr. - Cannon Rd.	NB	2	685	0.19	A	1,769	0.49	A
	SB	2	1,509	0.42	A	1,041	0.29	A
<u>Marron Rd.</u>								
Monroe Ave. - El Camino Real	EB	2	153	0.08	A	589	0.16	A
	WB	2	219	0.19	A	522	0.15	A
El Camino Real - East End	EB	2	160	0.04	A	480	0.13	A
	WB	2	250	0.07	A	430	0.12	A
<u>Carlsbad Village Dr.</u>								
El Camino Real - Avenida De Anita	EB	2	252	0.07	A	572	0.16	A
	WB	2	807	0.22	A	437	0.13	A
Tamarack Ave. - College Blvd.	EB	2	488	0.14	A	521	0.15	A
	WB	2	519	0.14	A	573	0.16	A

D = Direction

(1) = Based on 1,800 vehicles per lane per hour.

V / C = Volume divided by capacity

Source: Highest Approach Volumes at Intersections, taken from Figure 9-7.

V/C	LOS
0.00-0.60	A
0.61-0.70	B
0.71-0.80	C
0.81-0.90	D
0.91-1.00	E
Over 1.00	F

9.3 INTERSECTIONS

The intersection peak hour volumes used for Alternative 1 were modified to account for the project only redistribution without the Marron Road extension.

Figure 9-5 shows the project only AM and PM peak hour traffic volumes for each study area intersection. These trips were distributed according to the trip distribution percentages shown in **Figure 9-1**.

Figure 9-6 shows the Buildout Alternative 2 intersection peak hour volumes, without project traffic.

Figure 9-7 includes project only peak hour traffic added to the Buildout Alternative 2 traffic.

Figure 9-8 shows intersection lane configurations for Buildout Alternative 2.

Table 9-3 compares the peak hour intersection levels of service without and with project traffic added to Buildout Alternative 2 peak hour volumes. A change in average control delay is also included in this table, showing the effect of project traffic. An increase in average control delay, at level of service E or F, if more than 2.0 seconds, indicates a significant project impact.

The intersection lane configurations for the intersections listed in Table 9-3 are the same as for existing conditions and do not include the planned mostly unfunded mitigation by the City of Oceanside as a result of other traffic studies.

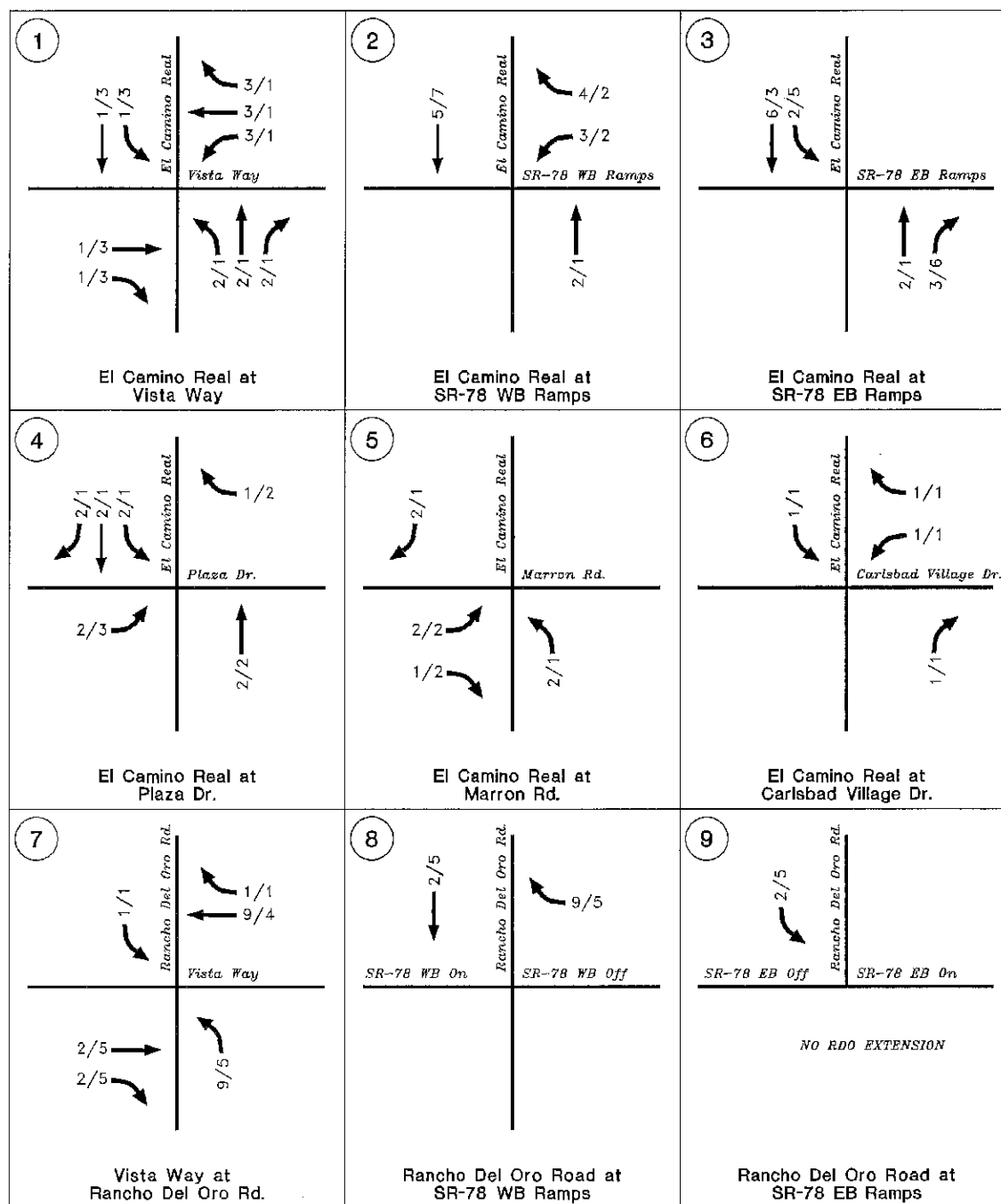


FIGURE 9-5
Project Only AM/PM Peak Hour Volumes - Alternative 2
With RDO Interchange / No RDO Extension / No Marron Road

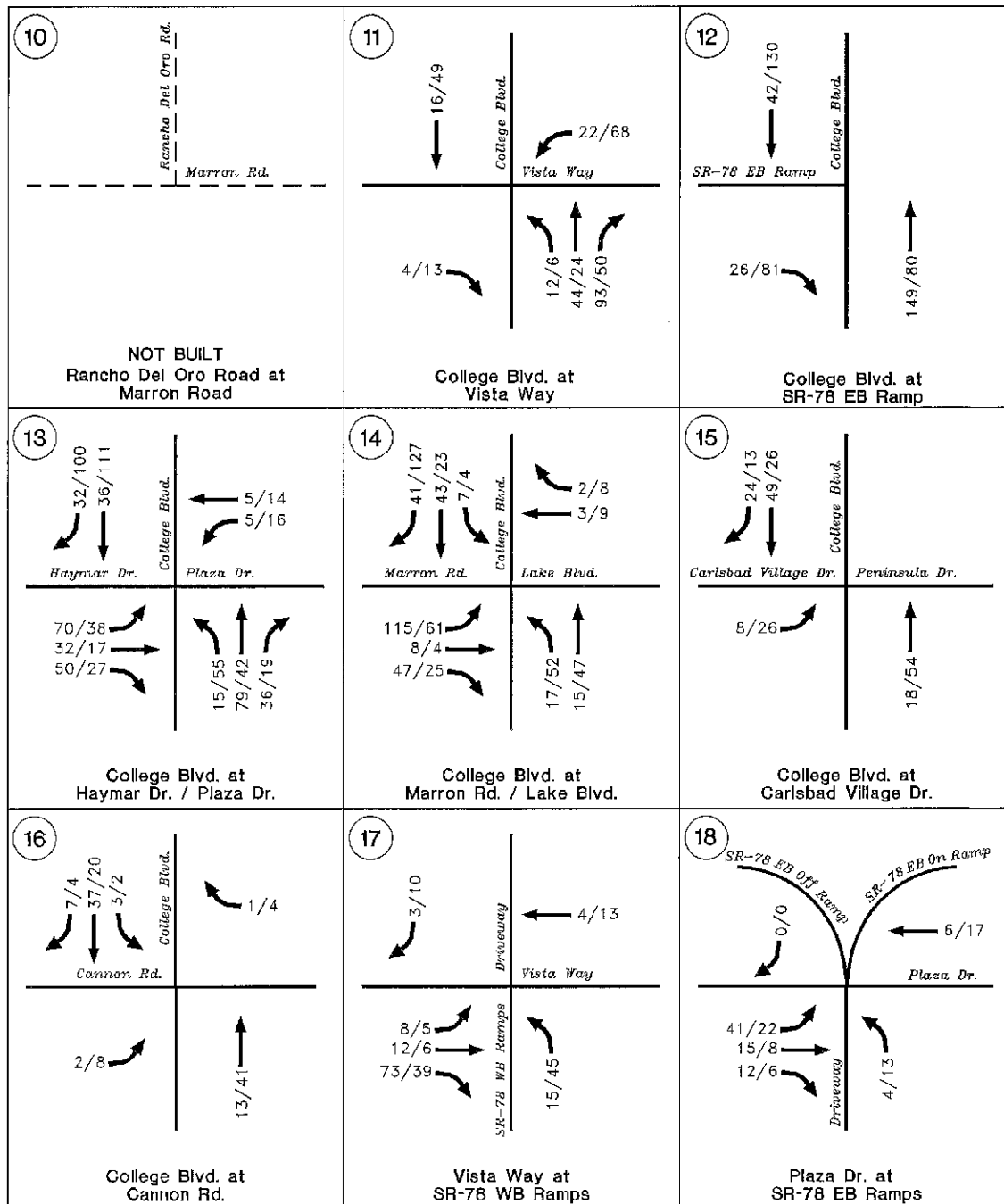


FIGURE 9-5
Project Only AM/PM Peak Hour Volumes - Alternative 2
With RDO Interchange / No RDO Extension / No Marron Road

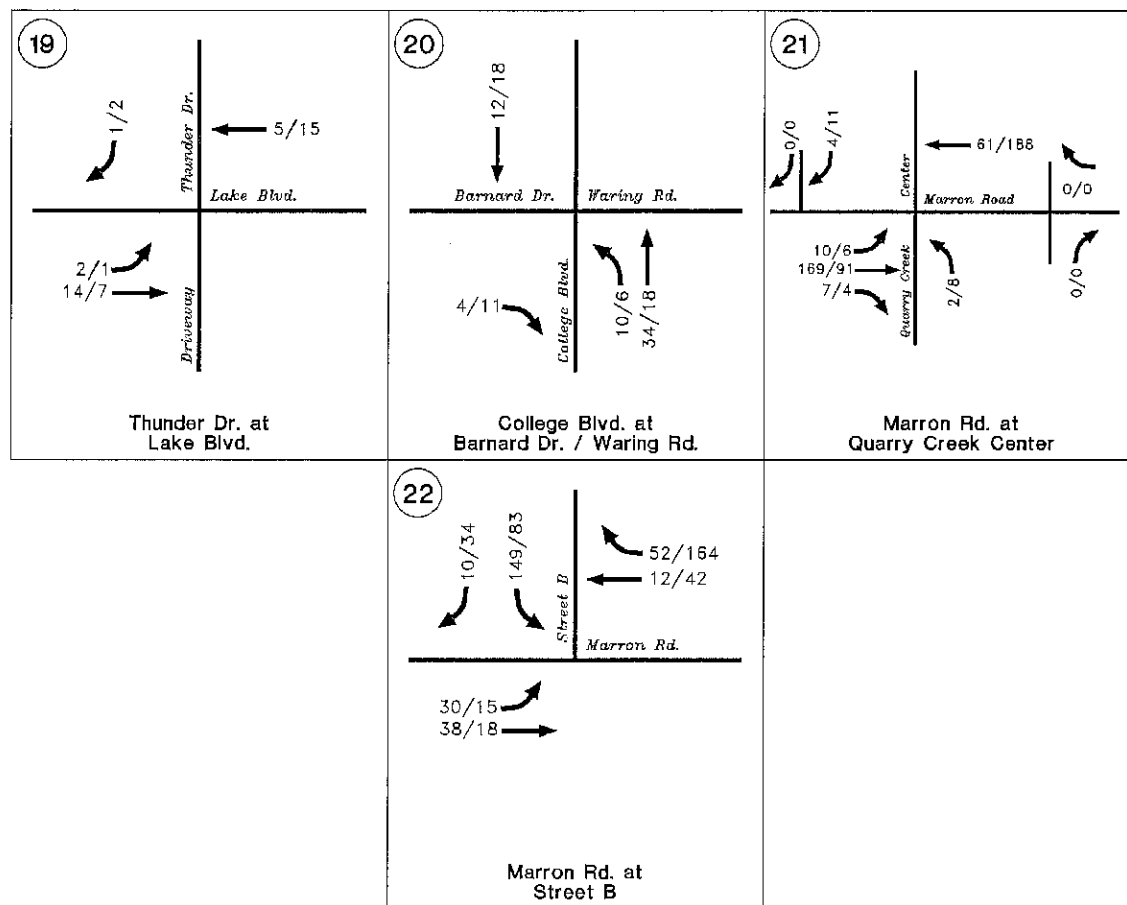


FIGURE 9-5
Project Only AM/PM Peak Hour Volumes - Alternative 2
With RDO Interchange / No RDO Extension / No Marron Road

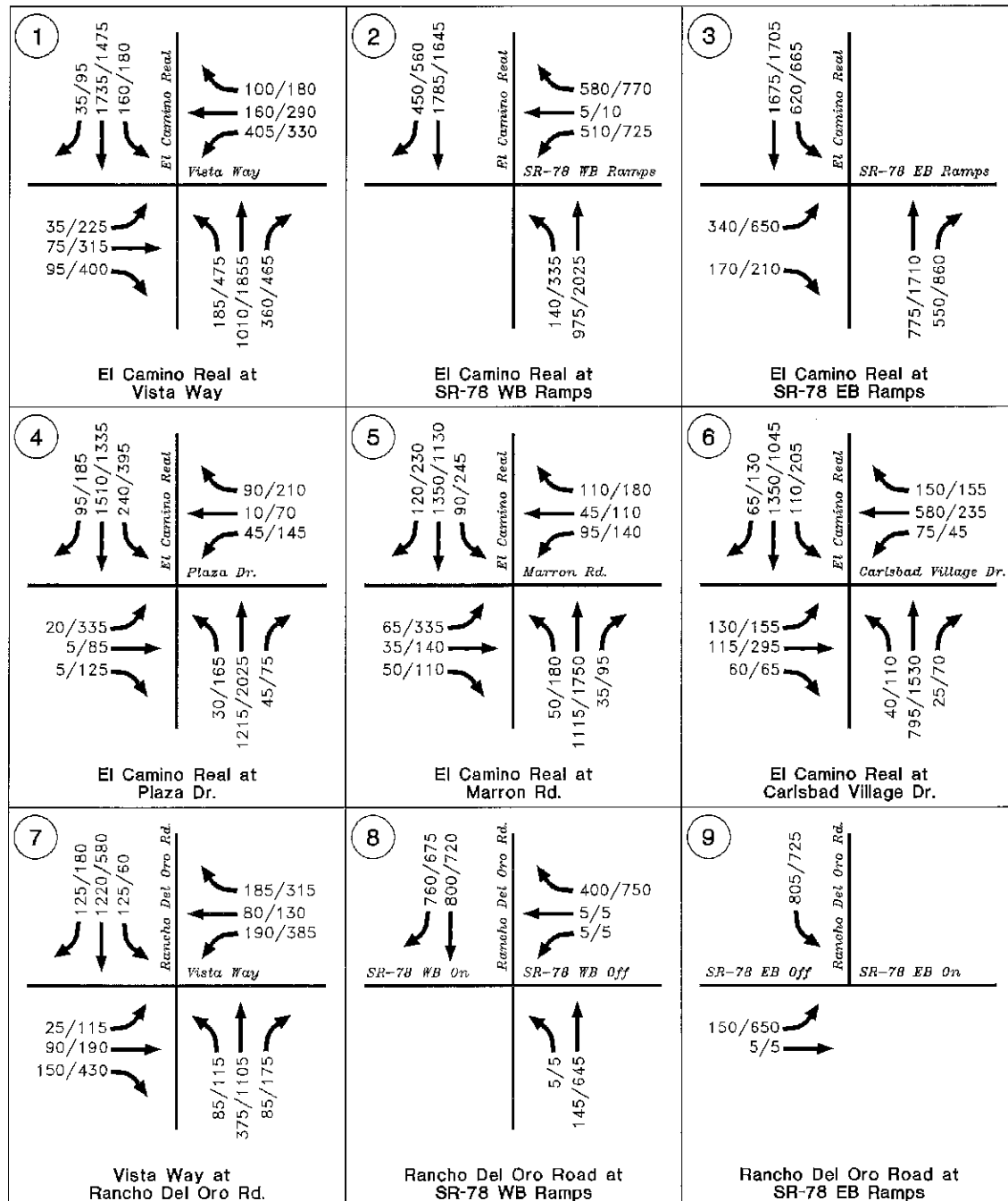


FIGURE 9-6

Buildout Without Project AM/PM Peak Hour Volumes - Alternative 2



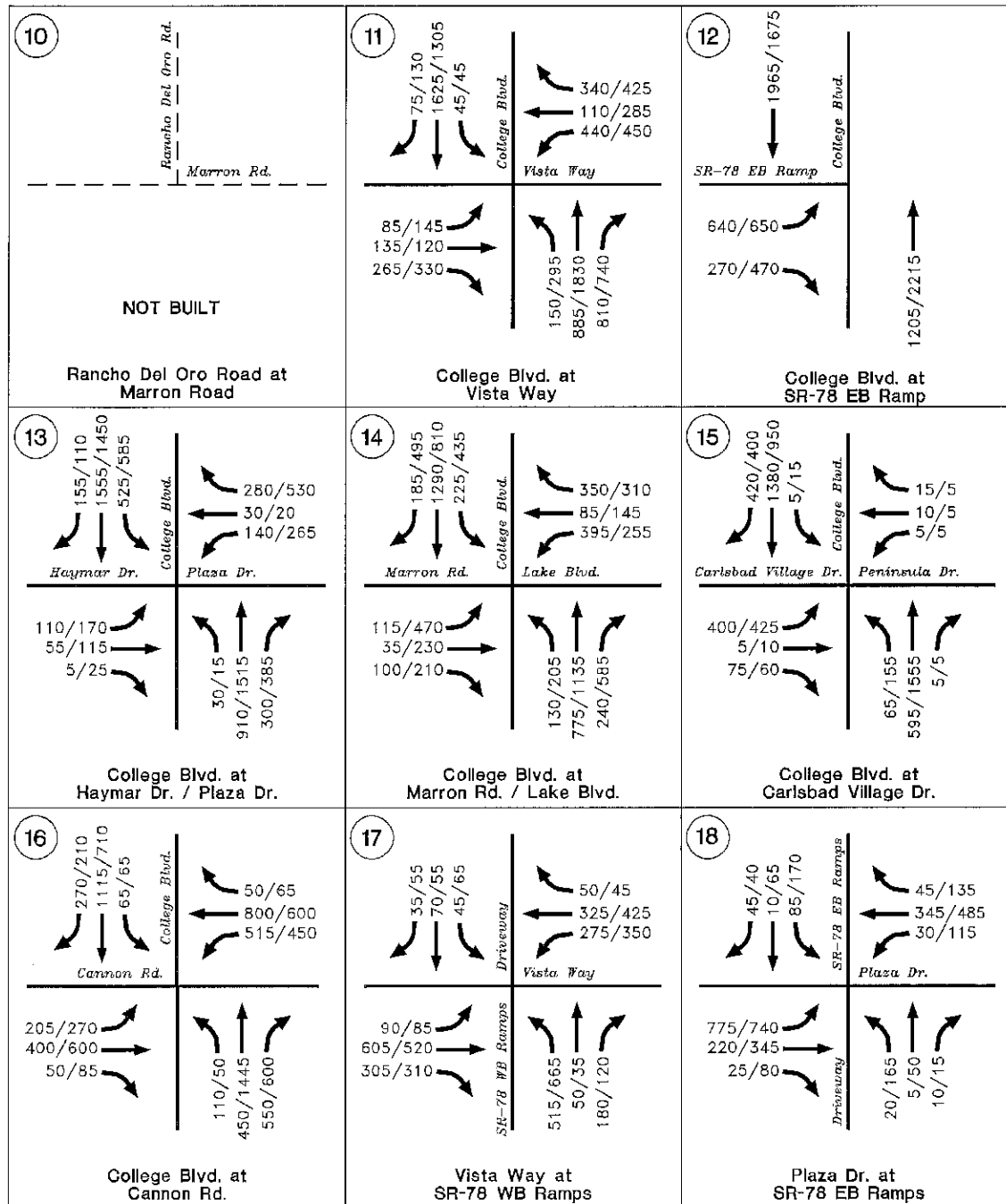


FIGURE 9-6

Buildout Without Project AM/PM Peak Hour Volumes - Alternative 2



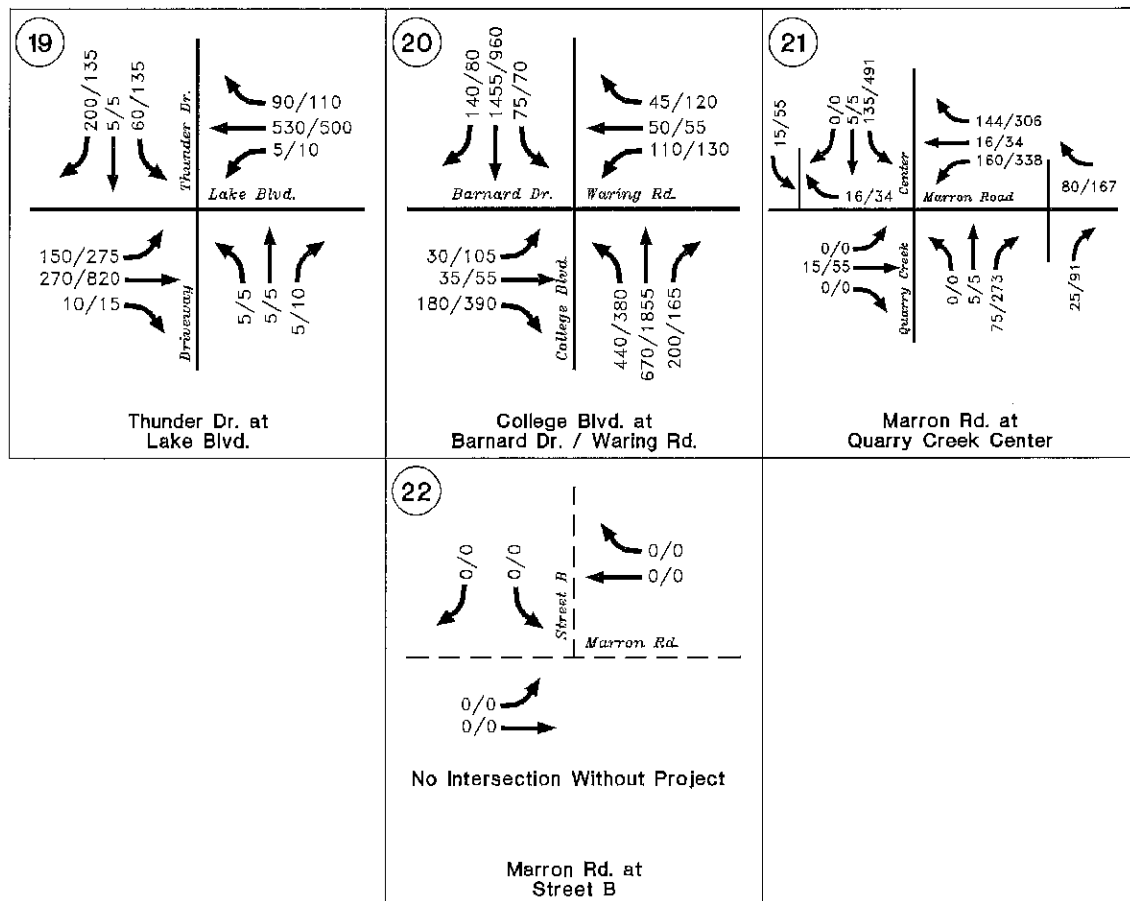
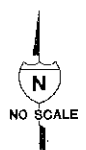


FIGURE 9-6

Buildout Without Project AM/PM Peak Hour Volumes - Alternative 2



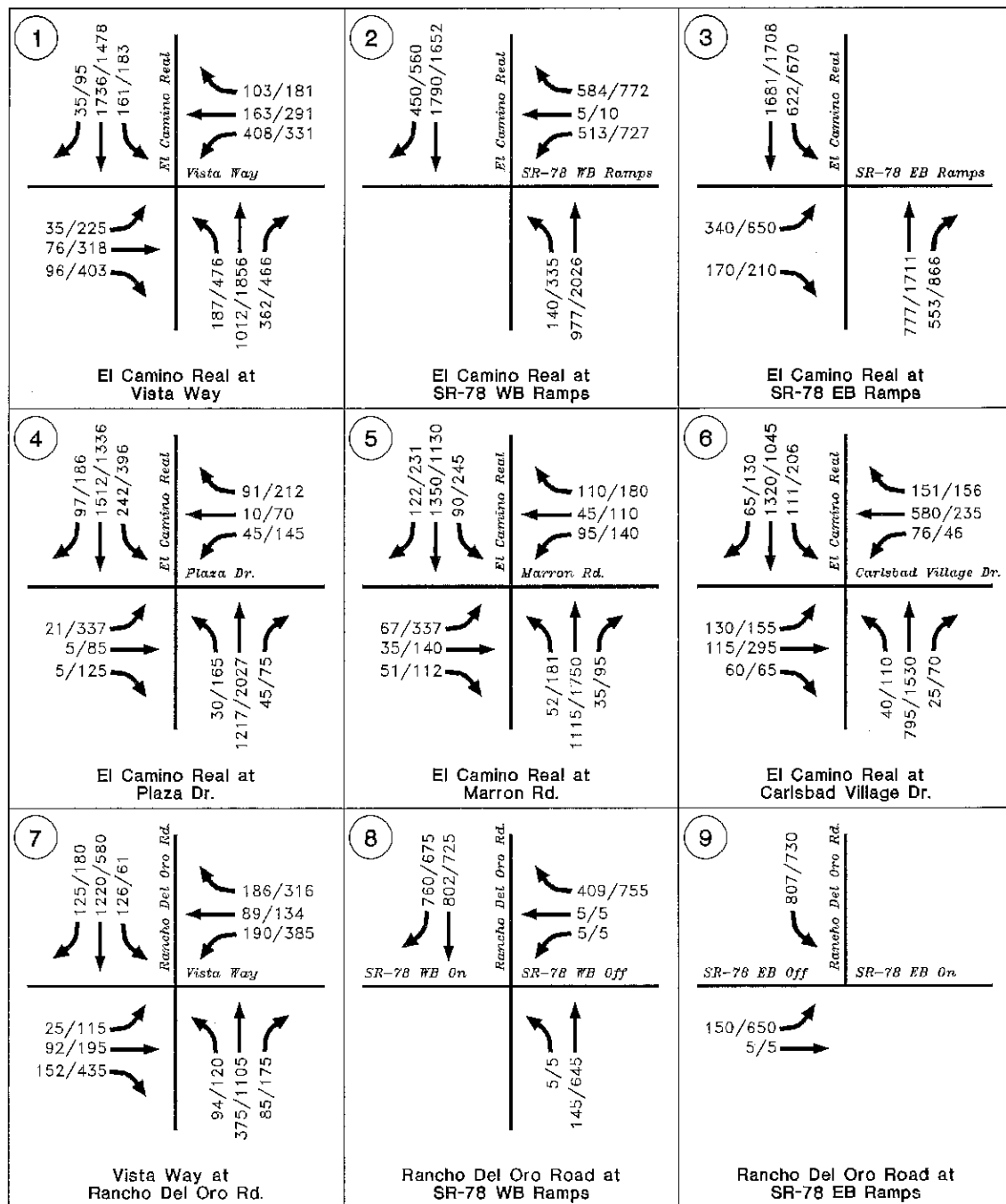


FIGURE 9-7

Buildout With Project AM/PM Peak Hour Volumes - Alternative 2

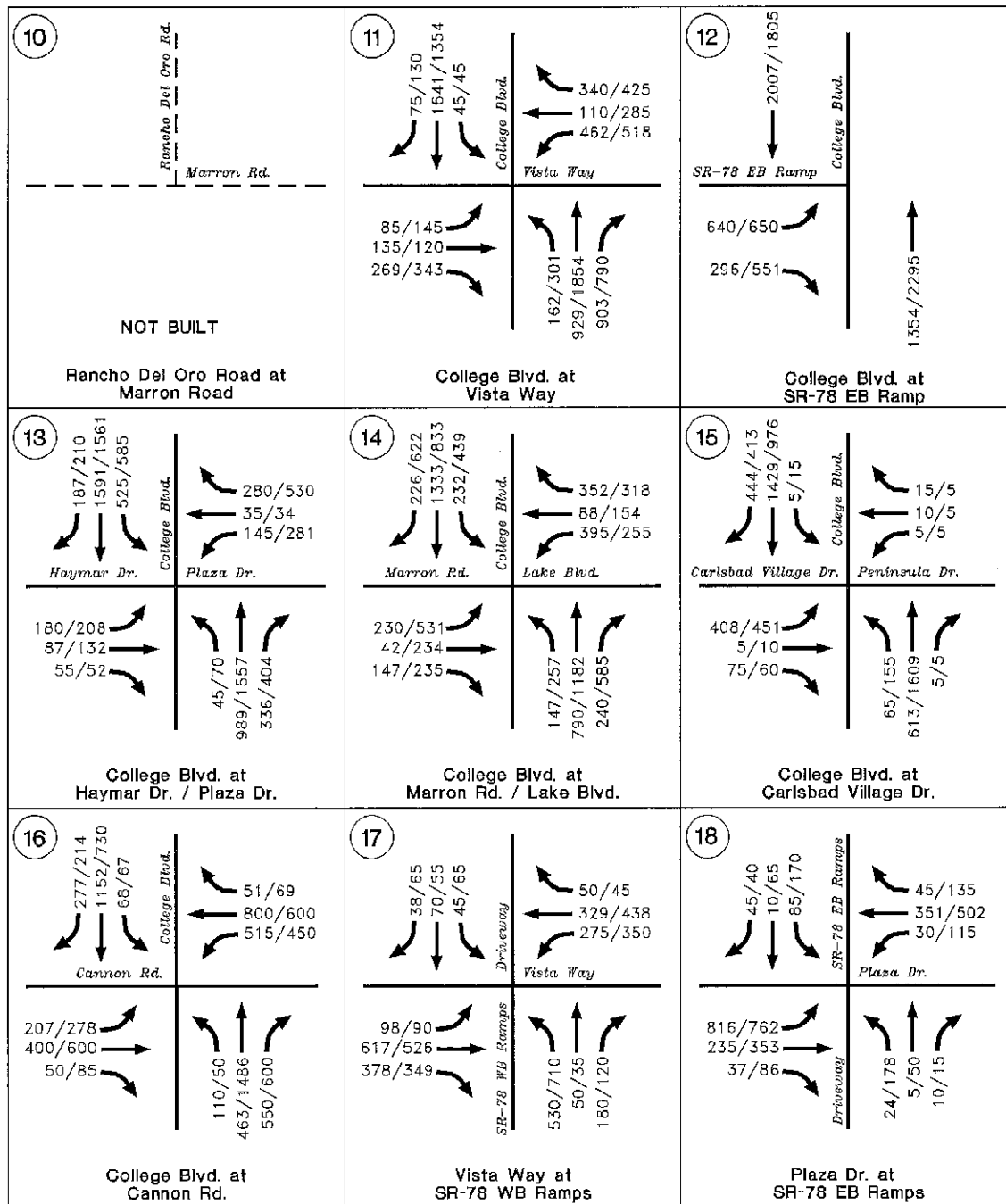


FIGURE 9-7

Buildout With Project AM/PM Peak Hour Volumes - Alternative 2



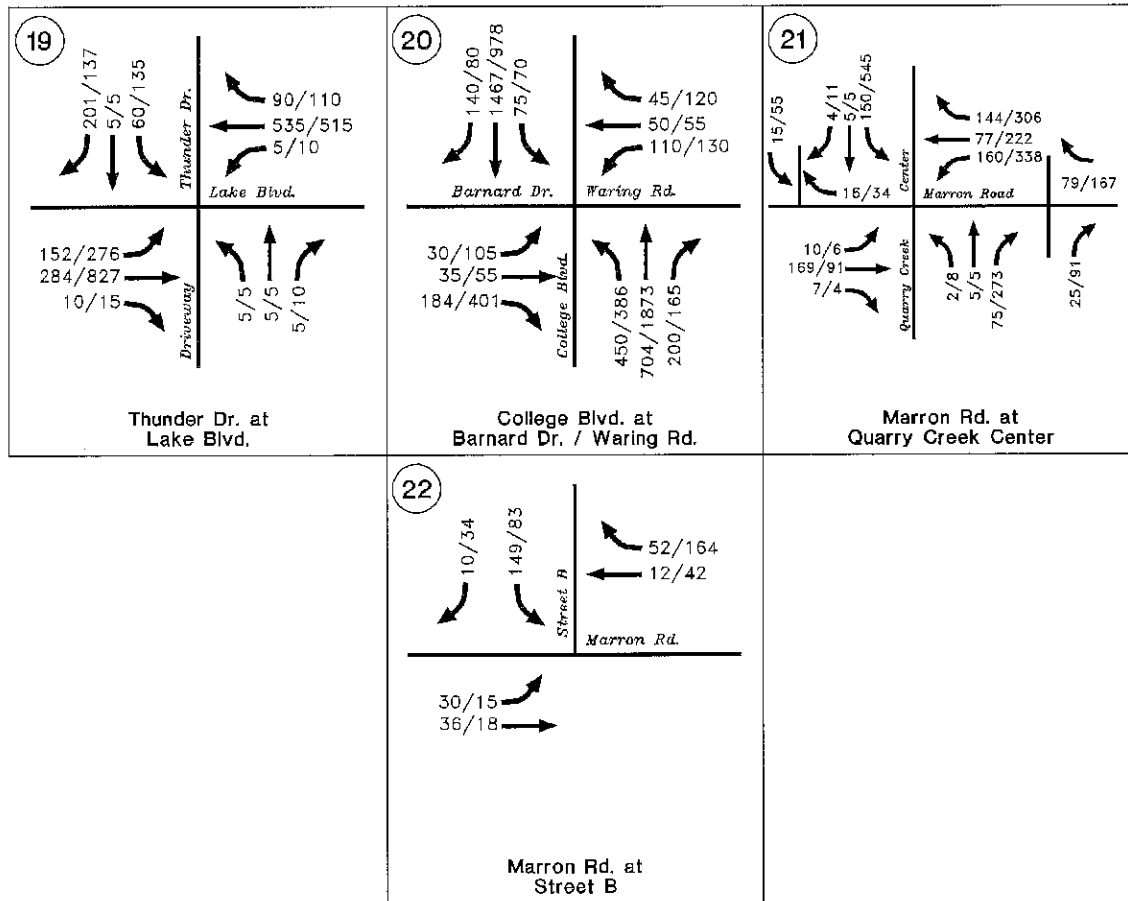
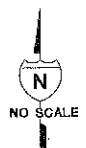


FIGURE 9-7

Buildout With Project AM/PM Peak Hour Volumes - Alternative 2



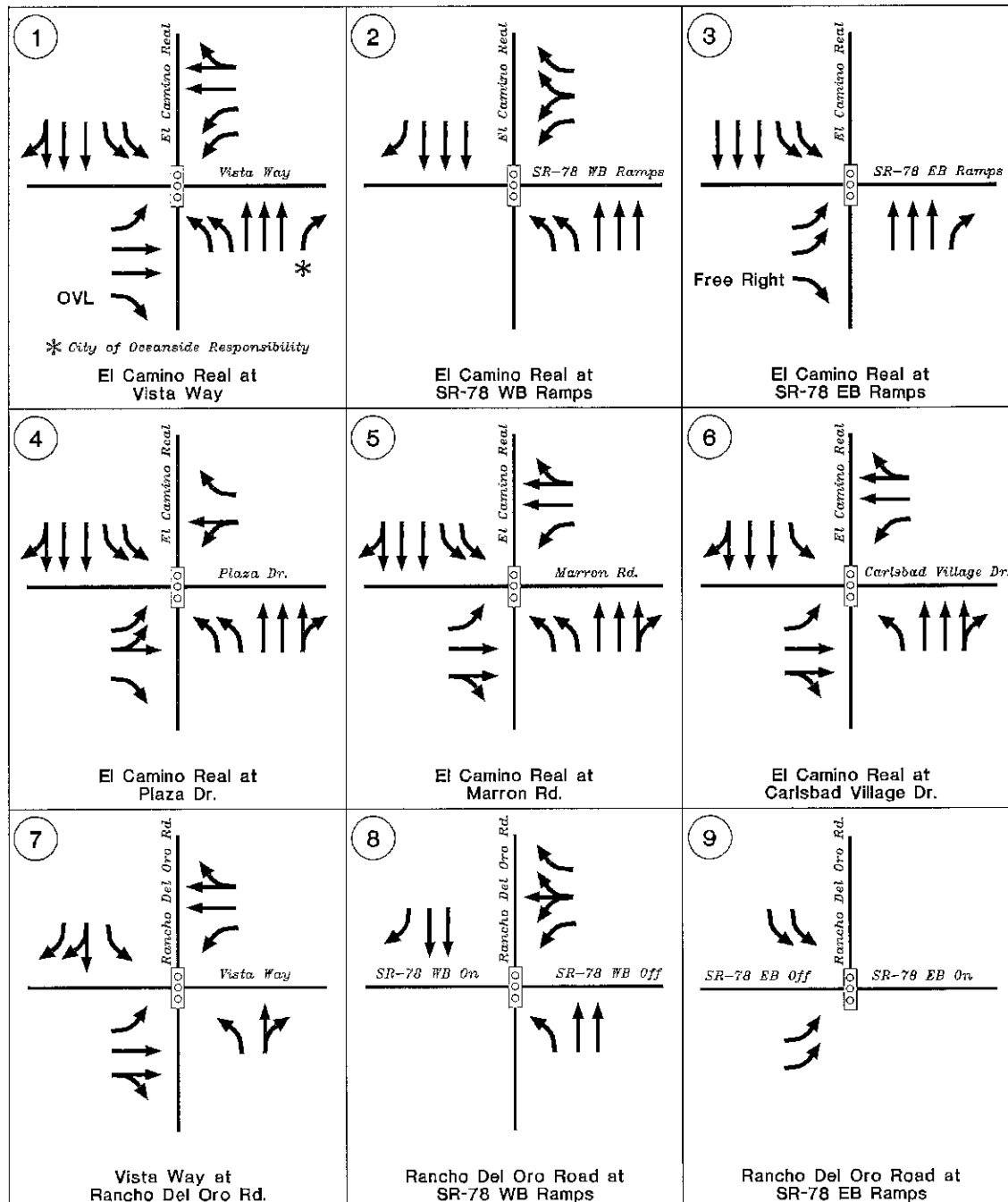


FIGURE 9-8

Buildout Alternative 2 Lane Configurations

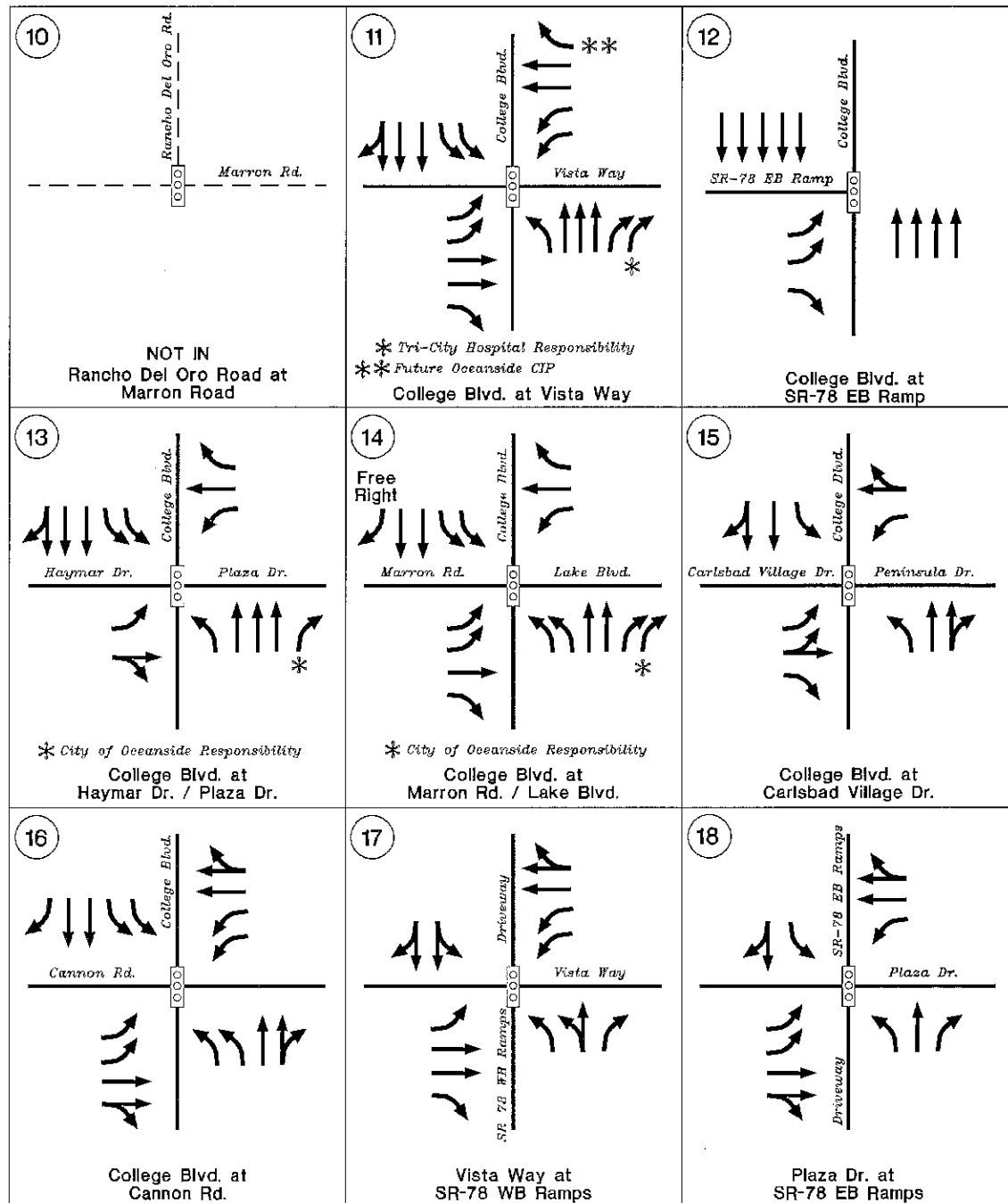


FIGURE 9-8

Buildout Alternative 2 Lane Configurations



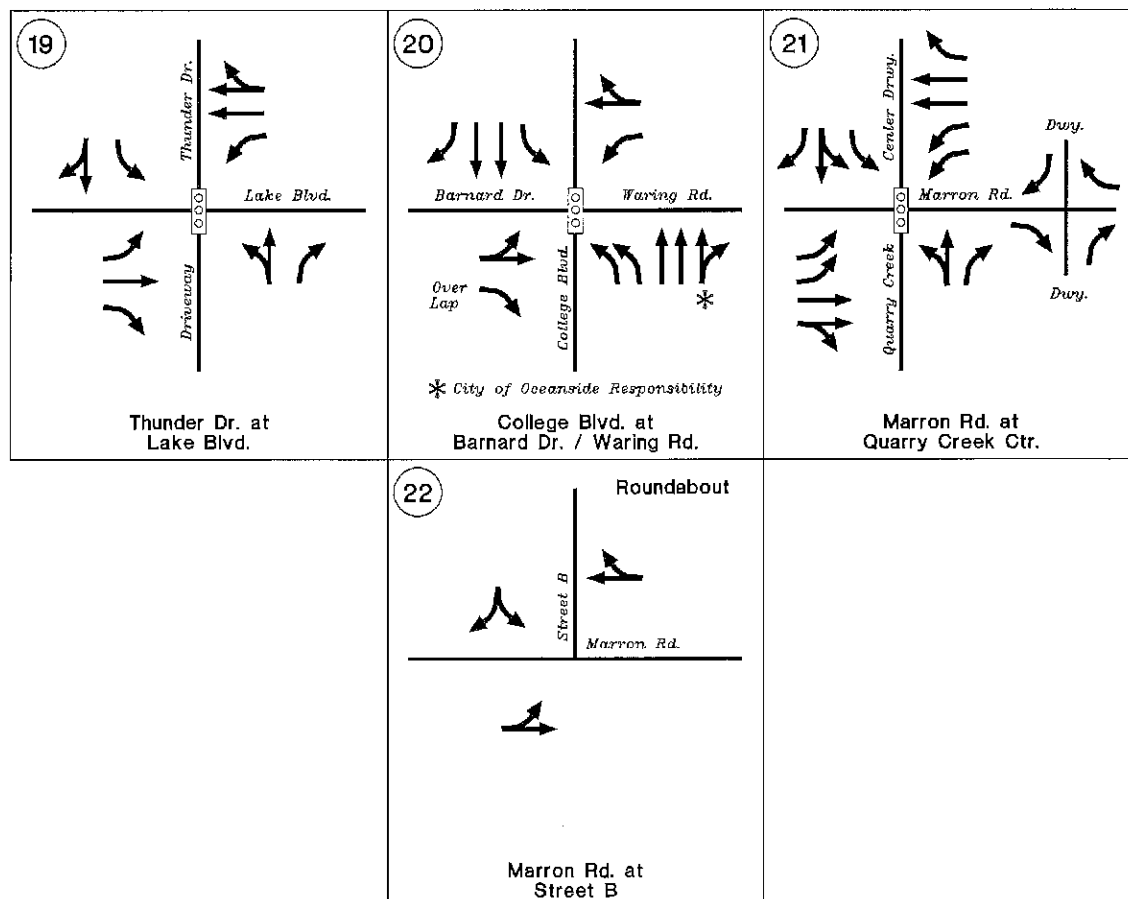


FIGURE 9-8

Buildout Alternative 2 Lane Configurations



TABLE 9-3
Alternative 2 Intersection Levels of Service
(Without Mitigation)

Number	Intersection	Alternative 2 Without Project				Alternative 2 With Project							
		AM Peak Hour		PM Peak Hour		AM Peak Hour				PM Peak Hour			
		D	LOS	D	LOS	D	LOS	Δ D	S ?	D	LOS	Δ D	S ?
1 OS	El Camino Real / Vista Way	38.2	D	65.4	E	38.3	D	0.1	N	65.9	E	0.5	N
2 OS	El Camino Real / SR-78 WB Ramps	33.4	C	48.1	D	33.9	C	0.5	N	48.5	D	0.4	N
3 OS	El Camino Real / SR-78 EB Ramps	21.2	C	53.7	D	21.4	C	0.2	N	54.4	D	0.7	N
4 CB	El Camino Real / Plaza Dr.	9.9	A	53.9	D	9.9	A	0.0	N	54.1	D	0.2	N
5 CB	El Camino Real / Marron Rd.	14.1	B	46.2	D	14.1	B	0.0	N	46.3	D	0.1	N
6 CB	El Camino Real / Carlsbad Village Dr.	37.1	D	39.1	D	37.2	D	0.1	N	39.2	D	0.1	N
7 OS	Vista Way / Rancho Del Oro Rd.	30.9	C	49.1	D	31.2	C	0.3	N	49.9	D	0.8	N
8 OS	Rancho Del Oro Rd. / SR-78 WB Ramps	34.2	C	28.0	C	34.5	C	0.3	N	28.2	C	0.2	N
9 OS	Rancho Del Oro Rd. / SR-78 EB Ramps	5.1	A	11.7	B	5.1	A	0.0	N	11.7	B	0.0	N
10 CB	Marron Rd. / Rancho Del Oro Rd.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
11 OS	College Blvd. / Vista Way	25.6	C	34.0	C	31.2	C	5.6	N	36.4	D	2.4	N
12 OS	College Blvd. / SR-78 EB Off Ramp	9.4	A	9.8	A	9.5	A	0.1	N	13.3	B	3.5	N
13 OS	College Blvd. / Plaza Dr.	26.6	C	39.7	D	32.3	C	5.7	N	50.8	D	11.1	N
14 OS	College Blvd. / Marron Rd. / Lake Blvd.	32.6	C	53.0	D	34.4	C	1.8	N	58.8	E	5.8	Y
15 CB	College Blvd. / Carlsbad Village Dr.	29.2	C	22.5	C	37.2	D	8.0	N	25.2	C	2.7	N
16 CB	College Blvd. / Cannon Rd.	42.2	D	46.0	D	44.6	D	2.4	N	49.4	D	3.4	N
17 OS	Vista Way / SR-78 WB Ramps	28.2	C	36.8	D	28.4	C	0.2	N	38.4	D	1.6	N
18 OS	Plaza Dr. / SR-78 EB Ramps	22.9	C	35.7	D	22.9	C	0.0	N	37.5	D	1.8	N
19 OS	Lake Blvd. / Thunder Dr.	31.3	C	32.3	C	31.4	C	0.1	N	32.5	C	0.2	N
20 OS	College Blvd. / Waring Rd.	36.7	D	47.8	D	38.0	D	1.3	N	49.8	D	2.0	N
21 OS	Marron Rd. / Quarry Creek Ctr.	23.2	C	34.3	C	23.4	C	0.2	N	34.9	C	0.6	N
22 CB	Marron Rd. / Street B	N/A	N/A	N/A	N/A	(1)	A	(1)	N	(1)	A	(1)	N

Notes:

N/A = Not Built

City:

OS = Oceanside

CB = Carlsbad

D = Control Delay

LOS = Level of Service

Δ D = Change in Delay

S ? = Significant Impact: Yes (Y) or No (N). (Significant at LOS E or F and change in delay is greater than 2.0 seconds)

(1) = Roundabout; Delay is not applicable; LOS is based on V/C; AM and PM V/C is at LOS A.

LOS	SECONDS DELAY
A	0.0-10.0
B	10.1-20.0
C	20.1-35.0
D	35.1-55.0
E	55.1-80.0
F	Over 80.0

Only two intersections are expected to operate at level of service “E” under Buildout Alternative 1 conditions:

- El Camino Real / Vista Way is at level of service “E” during the PM peak hour without or with project traffic. The change in average control delay is not greater than 2.0 seconds, at 0.5 second, so that project impacts are less than significant and no project mitigation is required.

Table 9-3-A lists the five intersections with planned but mostly unfunded improvements by the City of Oceanside, including the El Camino Real / Vista Way intersection. The addition of a northbound right-turn-only lane on College Boulevard to eastbound Vista Way would mitigate the deficient level of service at this location.

- College Boulevard / Marron Road – Lake Boulevard is at level of service “E” during the PM peak hour without or with project traffic. The change in average control delay with the addition of project traffic is greater than 2.0 seconds so that the project would have a significant cumulative impact. A project fair share contribution towards mitigation is recommended. The project fair share is 61.2%.

The planned but unfunded mitigation at this location, as identified in the Oceanside Circulation Element Update FEIR, is the addition of a second northbound right-turn-only lane to eastbound Lake Boulevard. As shown in **Table 9-3-A** the addition of the second right turn only lane provides mitigation for the deficient operation at this location.

Buildout Alternative 2 project traffic effects at all other study area intersections would also be less than significant.

TABLE 9-3-A

**Alternative 2 Intersection Levels of Service
(With Planned but Unfunded Improvements)**

Number	Intersection	Alternative 2 Without Project				Alternative 2 With Project							
		AM Peak Hour		PM Peak Hour		AM Peak Hour				PM Peak Hour			
		D	LOS	D	LOS	D	LOS	Δ D	S ?	D	LOS	Δ D	S ?
1 OS	El Camino Real / Vista Way (1)	37.1	D	47.4	D	37.2	D	0.1	N	47.8	D	0.4	N
11 OS	College Blvd. / Vista Way (2)	23.1	C	35.7	D	23.7	C	0.6	N	37.8	C	2.1	N
13 OS	College Blvd. / Plaza Dr. (3)	25.1	C	28.5	C	29.4	C	4.3	N	35.2	D	6.7	N
14 OS	College Blvd. / Marron Rd. / Lake Blvd. (4)	32.5	C	52.7	D	34.4	C	1.9	N	54.9	D	2.2	N
20 OS	College Blvd. / Waring Rd. (5)	36.6	D	29.5	C	38.0	D	1.4	N	29.8	C	0.3	N

(1) = Add a Northbound Right-Turn-Only lane on El Camino Real to Eastbound Vista Way.

(2) = Add a second Northbound Right-Turn-Only lane on College Blvd. to Eastbound Vista Way. Add a Westbound Right-Turn-Only lane to Northbound College Blvd.

(3) = Add a Northbound Right-Turn-Only lane on College Blvd. to Eastbound Plaza Dr.

(4) = Add a second Northbound Right-Turn-Only lane on College Blvd. to Eastbound Lake Blvd.

(5) = Restripe Northbound Right-Turn-Only lane for a third Northbound Shared Through-Right Turn lane. Widen far-side College Blvd. to accept the added Northbound through lane.

Notes:

N/A = Not Built

City:

OS = Oceanside

CB = Carlsbad

D = Control Delay

LOS = Level of Service

Δ D = Change in Delay

S ? = Significant Impact: Yes (Y) or No (N). (Significant at LOS E or F and change in delay is greater than 2.0 seconds)

LOS	SECONDS DELAY
A	0.0-10.0
B	10.1-20.0
C	20.1-35.0
D	35.1-55.0
E	55.1-80.0
F	Over 80.0

9.4 STATE ROUTE 78 MAINLINES

The project traffic volumes are included in Buildout Alternative 2 SR-78 average daily traffic volumes shown in **Table 9-4**. This table shows freeway volumes without and with project traffic. This table also compares levels of service and volume to capacity (V/C) ratios, and indicates if the project has or has not a significant freeway impact. At levels of service “E” or “F” an increase in V/C ratio of no more than 0.01 is acceptable. As shown in this table, segments at level of service “E” or “F” have V/C increases of less than 0.01 so that the project has less than significant impacts to SR-78 mainlines.

Appendix E includes the Alternative 2 traffic model documentation and intersection levels of service worksheets.

TABLE 9-4

Buildout Alternative-2 Freeway Segment Levels of Service

WITHOUT PROJECT									
Segment	Lanes (1-Way)	Cap.	ADT	Peak Hour % (1)	Direction Split (1)	Truck Factor (2)	Peak Volume	V/C	LOS (3)
State Route 78									
I-5 to Jefferson St.	3+AUX	8,850	194,900	8	6 : 4	0.95	9,848	1.113	F0
Jefferson St. to El Camino Real	3+AUX	8,850	170,400	8	6 : 4	0.95	8,615	0.973	E
El Camino Real to Rancho Del Oro Rd.	3	7,050	180,800	8	6 : 4	0.95	9,135	1.296	F1
Rancho Del Oro Rd. to College Blvd.	3	7,050	181,900	8	6 : 4	0.95	9,191	1.304	F1
College Blvd. to Emerald Dr.	3	7,050	165,100	8	6 : 4	0.95	8,342	1.183	F0

WITH PROJECT									
Segment	Lanes (1-Way)	Cap.	ADT	Peak Hour % (1)	Direction Split (1)	Truck Factor (2)	Peak Volume	V/C	LOS (3)
State Route 78									
I-5 to Jefferson St.	3+AUX	8,850	195,800	8	6 : 4	0.95	9,893	1.118	F0
Jefferson St. to El Camino Real	3+AUX	8,850	171,300	8	6 : 4	0.95	8,655	0.978	E
El Camino Real to Rancho Del Oro Rd.	3	7,050	181,800	8	6 : 4	0.95	9,186	1.303	F1
Rancho Del Oro Rd. to College Blvd.	3	7,050	183,100	8	6 : 4	0.95	9,251	1.312	F1
College Blvd. to Emerald Dr.	3	7,050	165,800	8	6 : 4	0.95	8,377	1.188	F0

LEVEL OF SERVICE AND V/C COMPARISON						
Segment	V/C With	LOS	V/C Without Project	LOS	Change in V/C	S?
State Route 78						
I-5 to Jefferson St.	1.118	F0	1.113	F0	0.005	N
Jefferson St. to El Camino Real	0.978	E	0.973	E	0.005	N
El Camino Real to Rancho Del Oro Rd.	1.303	F1	1.296	F1	0.007	N
Rancho Del Oro Rd. to College Blvd.	1.312	F1	1.304	F1	0.008	N
College Blvd. to Emerald Dr.	1.188	F0	1.183	F0	0.005	N

Legend:

Cap. = Capacity
Mainlane Cap. @ 2,350 VPHPL
Auxillary Lane Cap. @ 1,800 VPHPL
ADT= Average Daily Traffic
V/C= Volume to Capacity Ratio
LOS= Level of Service
Direction Split = % of Peak Hour in Peak Direction
Truck Factor = Represents Capacity Reduction for Heavy Vehicles

Notes:

(1) Source: Caltrans 2010 Traffic Volumes.
(2) Highway Capacity Manual (2000) EQN. (3-2); assume 5% trucks plus RV's.
(3) Caltrans District 11 LOS Estimation Procedures, See Table 2-3
S? = Significant Impact: Yes (Y), No (N).
(At LOS E or F, an increase in V/C of no more than 0.01 is acceptable).

10.0 PROJECT CIRCULATION ROADWAYS

The project circulation roadways are shown on the attached Quarry Creek site plans, with AM and PM peak hour volumes shown at the project intersections.

10.1 ALTERNATIVE 1

Figure 10-1 shows the circulation roadway within the project with the assumed connection of Marron Road through the open space area to the west of the project boundary. The Marron Road / Street B intersection is recommended to be signalized with this alternative.

10.2 ALTERNATIVE 2

Figure 10-2 shows these circulation roadways and peak hour volumes at project intersections.

The Marron Road / Street B intersection would be a round-about controlled intersection with this alternative since there would be no through traffic on Marron Road and the traffic volumes would be lower than for Alternative 1.

Under both of these alternatives, the internal circulation roadways, Street A and Street B will have on-street parking prohibited, with bike lanes. These local streets will be of sufficient capacity to adequately accommodate the expected low volumes.

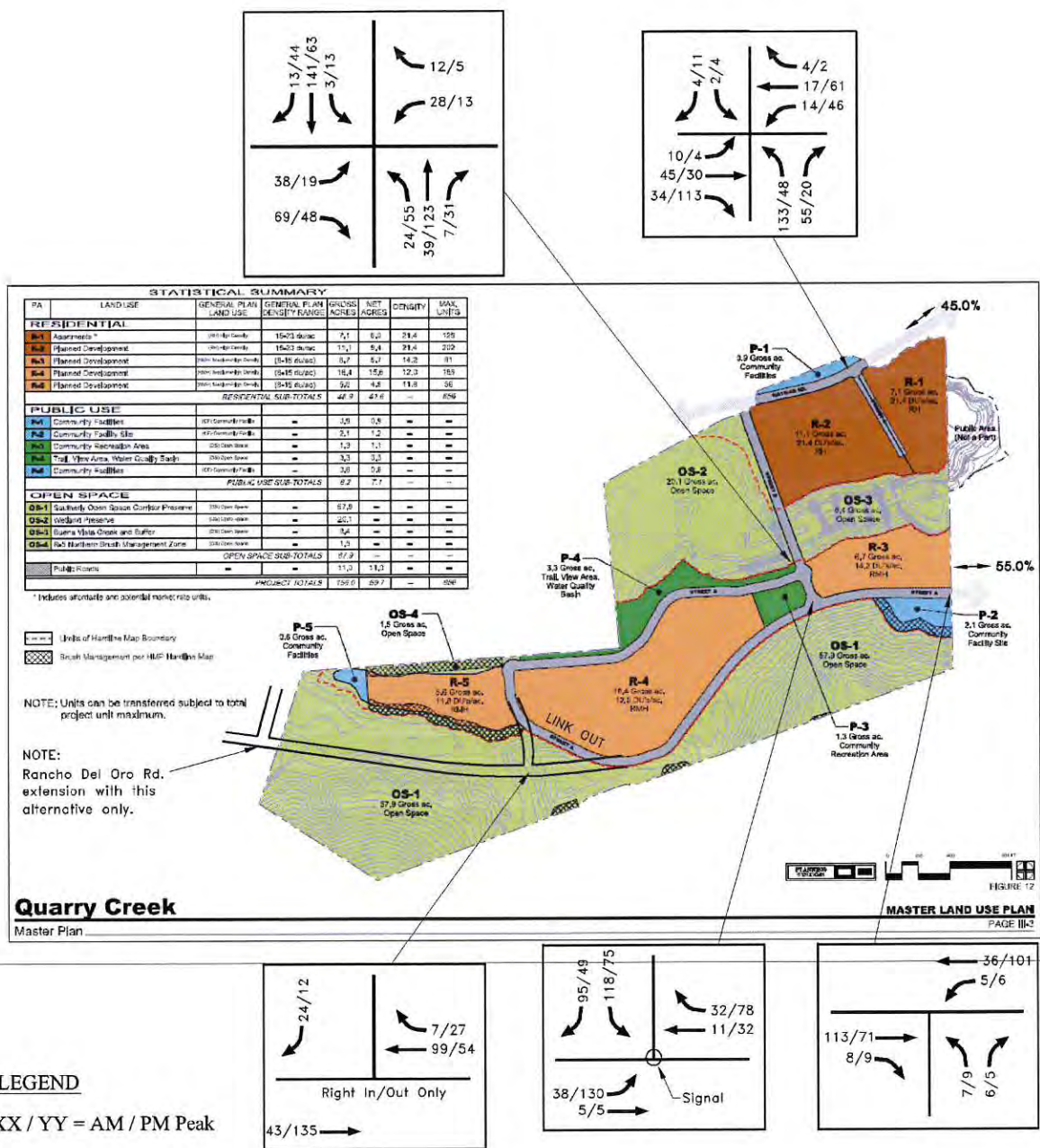
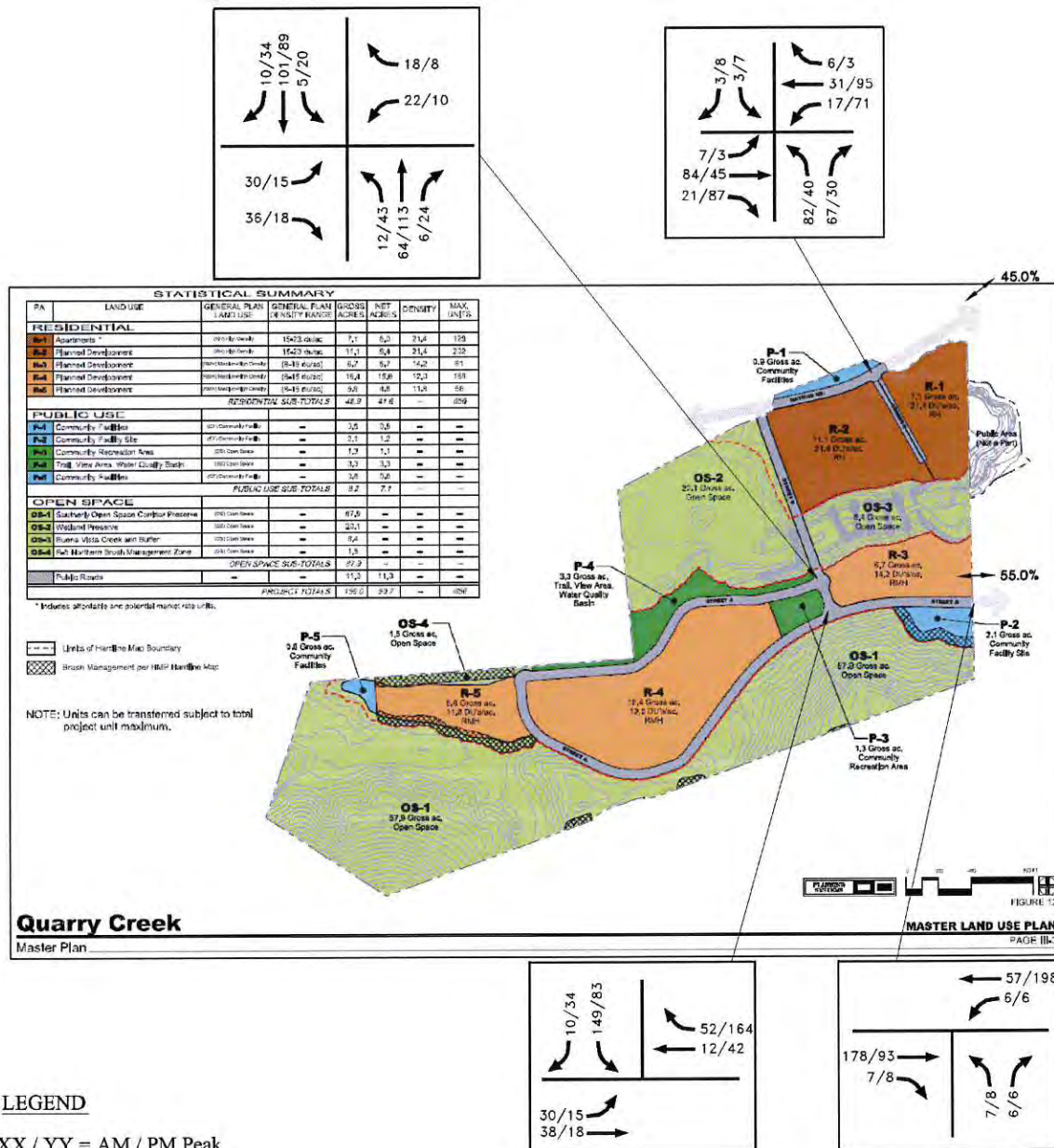


FIGURE 10-1
Project Only AM/PM Peak Hour Volumes - Alternative 1



11.0 PEDESTRIAN / TRANSIT MASTER PLAN GUIDELINES

The Quarry Creek Master Plan has established a pedestrian, bike, and trail circulation plan.

Figure 11-1 shows an excerpt from the Master Plan indicating pedestrian trails, sidewalks and bike lanes.

Section 7.3 of this Quarry Creek Master plan shows the vehicular circulation plan, indicating the future bus transit route that will extend from the existing Quarry Creek Shopping Center to the planned park and ride lot within the Quarry Creek Master Plan area. This is shown in **Figure 11-2**.

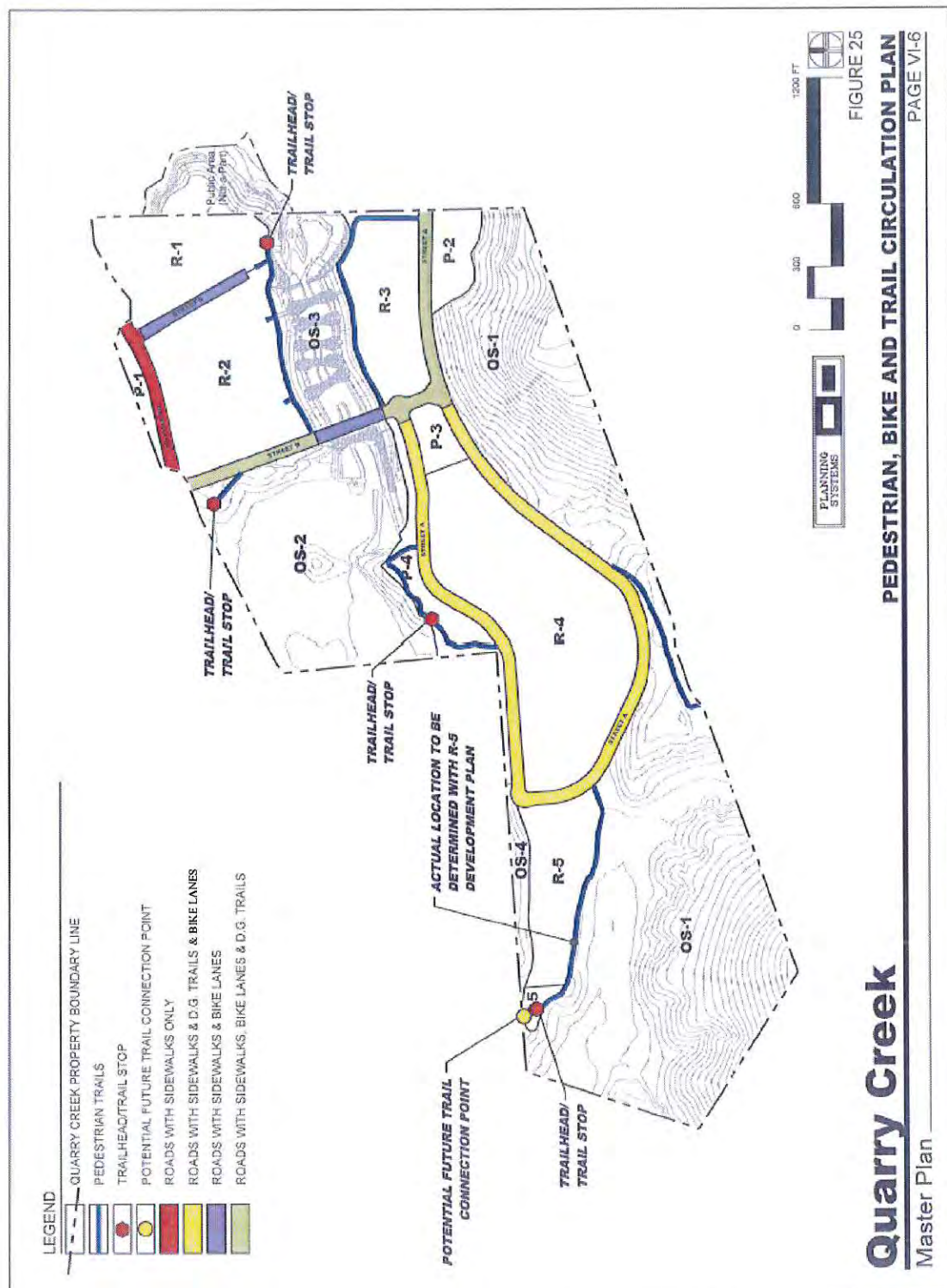


FIGURE 11-1

Pedestrian, Bike and Trail Circulation Plan

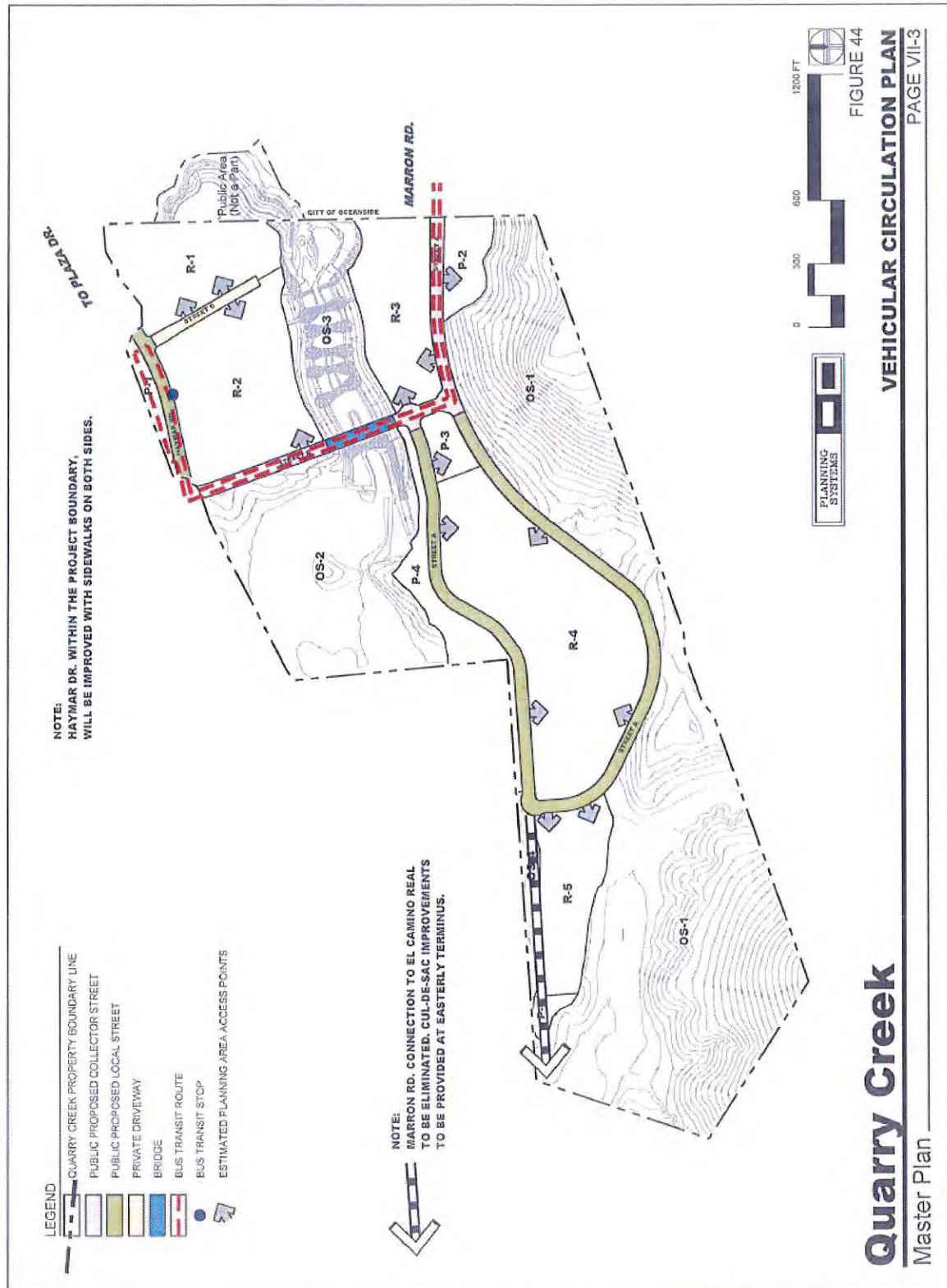


FIGURE 11-2
Vehicular Circulation Plan

12.0 CONCLUSIONS AND RECOMMENDATIONS

This report evaluates potential traffic impacts due to development of the 656 dwelling unit Quarry Creek Master Plan. The Quarry Creek Master Plan also includes 1.5 net acres of community facilities that might include a day-care, and a 0.9 acre park and ride lot.

The project is expected to generate 5,578 average daily vehicle trips, 469 AM peak hour trips (121 inbound; 348 outbound), and 572 PM peak hour trips (386 inbound; 186 outbound). External trips have been adjusted down slightly to account for a transit reduction for planning area R-1, R-2, and R-3, which will be within one-fourth mile of transit service. The transit reduction decreases average daily vehicle trips by 2.8% and AM / PM peak hour trips by 2.6%.

The project is located in northern Carlsbad and will have access from Marron Road, which currently extends through the Quarry Creek Shopping Center from College Boulevard in the City of Oceanside.

This traffic analysis was conducted for Existing Conditions, Project Plus Existing Conditions, Near-Term and Near-Term Plus Project Conditions, Buildout and Buildout Plus Project Conditions.

The Existing Conditions, Project Plus Existing Conditions, Near-Term and Near-Term Plus Project Conditions evaluations were conducted assuming the current existing street network without the future extensions of Marron Road to the west to connect with El Camino Real, and without the State Route (SR) 78 / Rancho Del Oro Road interchange, and the Rancho Del Oro Road extension to Marron Road.

The Buildout and Buildout Plus Project Conditions were evaluated for two street network alternatives:

Alternative 1 – This street network assumes all roadways that are included in the City of Carlsbad and City of Oceanside General Plan Circulation Plans. This street network assumes the extension of Marron Road from the existing east end at the Quarry Creek Shopping Center property line, to the existing west end approximately 1,000 feet east of El Camino Real, all within the City of Carlsbad.

Alternative 2 – This street network assumes the Rancho Del Oro Road interchange at SR-78 is constructed, but the Marron Road extension is not included, nor is the Rancho Del Oro Road extension to Marron Road.

Significance Thresholds

In order to determine if the project would have a significant traffic impact on roadway segments or intersections, both the SANTEC / ITE Guidelines and the City of Carlsbad Growth Management Plan Circulation Performance Standard were used.

1. If the addition of project traffic to a roadway segment or intersection causes the level of service to decrease from “D” to “E” or “F”, then the project is considered to have a significant impact.
2. If a facility is at level of service “E” or “F” before the addition of project traffic, then the following changes are allowed:

- Roadway Segments – An increase in the volume to capacity (v/c) ratio based on average daily traffic volumes, of no more than 0.02 is acceptable. However, a segment peak hour analysis must be completed under project conditions to determine peak hour significance of project impacts. A decrease in segment average travel speed of greater than one mile per hour indicates a significant impact.
- Intersections – An increase in delay of no more than 2.0 seconds is acceptable.
- Freeways – An increase in volume to capacity (V/C) ratio of no more than 0.01 is acceptable.

Provided below are conclusions and recommendations that describe project traffic impacts and possible mitigation.

12.1 EXISTING CONDITIONS

Street Segments Within Oceanside

Of the 18 study area street segments in Oceanside only two segments currently operate deficiently:

- Vista Way between College Boulevard and the SR-78 westbound ramps.

Mitigation: The Oceanside Circulation Element Update recommends providing a westbound dedicated right-turn lane and lengthening the westbound left-turn lanes at the College Boulevard / Vista Way intersection by restriping the existing lanes. As stated in the Update, these

improvements would improve peak hour operations but would not fully mitigate segment impacts, so that overriding considerations should be adopted.

- Lake Boulevard between Thunder Drive and Sundown Lane, at LOS “E”.

Mitigation: Widen to a 4-lane Secondary Collector with two-way left turn lane. However, the Oceanside Circulation Element Update Final EIR recommends retaining this segment as two lanes and adopting Overriding Considerations, due to an agreement between the City and the residents to maintain this as a two lane road with a two-way left turn lane pocket.

Street Segments Within Carlsbad

Of the 11 roadway segments evaluated in Carlsbad, no segments evaluated operate deficiently during the AM and PM peak hours, as required by the City’s Growth Management Plan.

Intersections

Within Oceanside, 14 intersections were evaluated and none currently operate deficiently.

Within Carlsbad, five intersections were evaluated and none currently operate deficiently.

State Route 78 Mainlines

Four segments of State Route 78 were evaluated, and one currently operates at level of service “E” during peak hours.

- El Camino Real to College Boulevard (LOS “E”).

Mitigation: Regional SR-78 studies are currently being conducted by SANDAG / Caltrans, and improvements to add High Occupancy Vehicle (HOV) lanes have been included in the Year 2050 Regional Transportation Plan.

12.2 PROJECT PLUS EXISTING CONDITIONS

The Project Plus Existing Conditions were evaluated for significant impacts due to the addition of project traffic to existing conditions volumes.

Street Segments Within Oceanside

Two segments in Oceanside would have significant direct project impacts:

- College Boulevard, between Vista Way and Plaza Drive.

(Project Responsibility – 100%)

Mitigation Recommendation: Since physical improvements to add lanes are infeasible, the Final, April 2012 City of Oceanside Circulation Element Update recommends reclassification of this segment of College Boulevard from a six-lane Major Arterial to a six-lane Prime Arterial. This reclassification would mitigate the project significant impacts. However, the Oceanside Update considers roadway reclassification infeasible, so that the Oceanside Circulation Element Update Final EIR recommends Overriding Considerations.

The changes or alterations are within the responsibility and jurisdiction of the City of Oceanside. The City of Oceanside does not appear to have adopted a program to construct such improvements and there does not appear to be a program to accept payments in lieu of construction. Due to the fact that the subject impacted segment is located outside the jurisdiction and regulatory authority of the City of Carlsbad, these impacts are considered significant and unmitigable. See CEQA Guidelines Section 15091 (a) (2).

- Vista Way, between College Boulevard and the SR-78 westbound ramps. This segment is at level of service "E" under existing conditions and with project traffic added. The project change in volume to capacity ratio is greater than 0.02, at 0.041, so this would be a significant impact.
(Project Responsibility – 100%)

Mitigation Recommendation: The Oceanside Circulation Element Update recommends providing a westbound dedicated right-turn lane and lengthening the westbound left-turn lanes at the College Boulevard / Vista Way intersection by restriping the existing lanes. As stated in the Update, these improvements would improve peak hour operations but would not fully mitigate segment impacts, so that Overriding Considerations should be adopted.

The changes or alterations are within the responsibility and jurisdiction of the City of Oceanside. The City of Oceanside does not appear to have adopted a program to construct such improvements and there does not appear to be a program to accept payments in lieu of construction. Due to the fact that the subject impacted segment is located outside the jurisdiction and regulatory authority of the City of Carlsbad, these impacts are considered significant and unmitigable. See CEQA Guidelines Section 15091 (a) (2).

Street Segments in Carlsbad

Project traffic impacts would be less than significant.

Intersections

Project traffic impacts would be less than significant at intersections within Oceanside and Carlsbad.

State Route 78 Mainlines

Project traffic impacts would be less than significant to State Route 78 segments evaluated.

12.3 NEAR-TERM PLUS PROJECT CONDITIONS

The Near-Term cumulative impacts from other approved and reasonably feasible pending projects that are expected to influence the study area at approximately the same time frame as the Quarry Creek project were evaluated without and with project traffic added.

No additional significant project impacts were identified for this condition beyond those previously discussed in prior sections of this report.

Street Segments Within Oceanside

Five street segments in Oceanside would operate deficiently at level of service “E” or “F”, and three segments would have a significant direct impact.

- El Camino Real between Vista Way and the SR-78 westbound ramp, level of service “E”, but project impacts are less than significant.
- College Boulevard between Vista Way and Plaza Drive, level of service “F”, the project impact is a significant direct impact.
(Project Responsibility – 45.8%)

Mitigation Recommendation: Since physical improvements to add lanes are infeasible, the Final, April 2012 City of Oceanside Circulation Element Update recommends reclassification of segments of College Boulevard from a six-lane Major Arterial to a six-lane Prime Arterial. This reclassification would mitigate the project significant impact. However, the Oceanside Update considers roadway reclassification infeasible, so that the Oceanside Circulation Element Update Final EIR recommends Overriding Considerations.

The changes or alterations are within the responsibility and jurisdiction of the City of Oceanside. The City of Oceanside does not appear to have adopted a program to construct such improvements and there does not appear to be a program to accept payments in lieu of construction. Due to the fact that the subject impacted segment is located outside the jurisdiction and regulatory authority of the City of Carlsbad, these impacts are considered significant and unmitigable. See CEQA Guidelines Section 15091 (a) (2).

- Vista Way between College Boulevard and the SR-78 westbound ramps, at level of service “F”, the project impact is a significant direct impact.

(Project Responsibility – 25.5%)

Mitigation Recommendation: The Oceanside Circulation Element Update recommends providing a westbound dedicated right-turn lane and lengthening the westbound left-turn lanes at the College Boulevard / Vista Way intersection by restriping the existing lanes. As stated in the Update, these improvements would improve peak hour operations but would not fully mitigate segment impacts, so that Overriding Considerations should be adopted.

The changes or alterations are within the responsibility and jurisdiction of the City of Oceanside. The City of Oceanside does not appear to have adopted a program to construct such improvements and there does not appear to be a program to accept payments in lieu of construction. Due to the fact that the subject impacted segment is located outside the jurisdiction and regulatory authority of the City of Carlsbad, these impacts are considered significant and unmitigable. See CEQA Guidelines Section 15091 (a) (2).

- Lake Boulevard between Thunder Drive and Sundown Lane, at level of service “F”, but the project impact is less than significant, so no project mitigation is required.

Street Segments Within Carlsbad

Of the 11 roadway segments evaluated in Carlsbad, no segments evaluated operate deficiently during the AM and PM peak hours, as required by the City’s Growth Management Plan.

Intersections

One intersection is Oceanside would operate deficiently, at level of service “E” during the PM peak hour, but the project impact is less than significant.

- El Camino Real / Vista Way, at level of service “E” during the PM peak hour, but the project impact is less than significant so that no project mitigation is required.

Intersections within Carlsbad would operate acceptably so project impacts would be less than significant and no project mitigation is required.

State Route 78 Mainlines

Project traffic impacts would be less than significant.

12.4 BUILDOUT ALTERNATIVE 1

Street Segments Within Oceanside

Five segments are expected to be at level of service “F” during Buildout of Alternative 1, but only three would have a significant cumulative project impact.

- College Boulevard between Barnard Way and Vista Way, at level of service “F”, but the project impact is less than significant.

- College Boulevard between Vista Way and Plaza Drive, at level of service “F”, and the project impact is a significant cumulative impact.
(Project Responsibility – 15.5%)
- College Boulevard between Plaza Drive and Marron Road, at level of service “F” as determined by a peak hour segment analysis, and the project impact is a significant cumulative impact.
(Project Responsibility – 32.8%)
- College Boulevard between Marron Road and the south City limit, at level of service “F”, and the project impact is a significant cumulative impact.
(Project Responsibility – 6.4%)

Mitigation Recommendation: Since physical improvements to add lanes are infeasible, the Final, April 2012 City of Oceanside Circulation Element Update recommends reclassification of these segments of College Boulevard from a six-lane Major Arterial to a six-lane Prime Arterial and a four-lane Major Arterial to a six-lane Major Arterial. This reclassification would mitigate the project significant impacts. However, the Oceanside Update considers roadway reclassification and widening infeasible, so that the Oceanside Circulation Element Update Final EIR recommends Overriding Considerations.

The changes or alterations are within the responsibility and jurisdiction of the City of Oceanside. The City of Oceanside does not appear to have adopted a program to construct such improvements and there does not appear to be a program to accept payments in lieu of construction. Due to the fact that the subject impacted segments are located outside the jurisdiction and regulatory authority of the City of Carlsbad, these impacts are considered significant and unmitigable. See CEQA Guidelines Section 15091 (a) (2).

- Vista Way between College Boulevard and the SR-78 westbound ramps, at level of service “F”, but the project impact is less than significant as indicated by the allowable increase in volume to capacity ratio and a peak hour segment analysis that shows a decrease in average travel speed of no more than one mile per hour. No project mitigation is required.

Street segments within Carlsbad are expected to operate acceptably during peak hours as required by the City’s Growth Management Plan.

Intersections

Two intersections within Oceanside are expected to be at deficient levels of service, one has less than a significant project impact and the other has a significant cumulative impact.

- El Camino Real / Vista Way, at level of service “E” during the PM peak, but the project impact is less than significant with no project mitigation required.
- College Boulevard / Marron Road – Lake Boulevard, at level of service “E” during the PM peak hour. The project will have a significant cumulative impact at this intersection, and should contribute a fair-share of the planned mitigation.

(Project Responsibility – 13.3%)

Mitigation: The Oceanside Circulation Element Update Final EIR recommends adding a second northbound right-turn only lane on College Boulevard to eastbound Lake Boulevard.

The changes or alterations are within the responsibility and jurisdiction of the City of Oceanside. The City of Oceanside does not appear to have adopted a program to construct such improvements and there does not appear to be a program to accept payments in lieu of construction. Due to the fact that the subject impacted intersection is located outside the jurisdiction and regulatory authority of the City of Carlsbad, these impacts are considered significant and unmitigable. See CEQA Guidelines Section 15091 (a) (2).

State Route 78 Mainlines

Project traffic impacts would be less than significant.

12.5 BUILDOUT ALTERNATIVE 2

Street Segments Within Oceanside

Five segments are expected to be at level of service “F” during Buildout of Alternative 1, but only three would have a significant cumulative project impact.

- College Boulevard between Barnard Way and Vista Way, at level of service “F”, but the project impact is less than significant.
- College Boulevard between Vista Way and Plaza Drive, at level of service “F”, and the project impact is a significant cumulative impact.
(Project Responsibility – 20.1%)

- College Boulevard between Plaza Drive and Marron Road, at level of service “F” as a result of a peak hour segment analysis, and the project impact is a significant cumulative impact.

(Project Responsibility – 28.6%)

- College Boulevard between Marron Road and the south City limit, at level of service “F”, and the project impact is a significant cumulative impact.

(Project Responsibility – 7.3%)

Mitigation Recommendation: Since physical improvements to add lanes are infeasible, the Final, April 2012 City of Oceanside Circulation Element Update recommends reclassification of these segments of College Boulevard from a six-lane Major Arterial to a six-lane Prime Arterial and a four-lane Major Arterial to a six-lane Major Arterial. This reclassification would mitigate the project significant impacts. However, the Oceanside Update considers roadway reclassification and widening infeasible, so that the Oceanside Circulation Element Update Final EIR recommends Overriding Considerations.

The changes or alterations are within the responsibility and jurisdiction of the City of Oceanside. The City of Oceanside does not appear to have adopted a program to construct such improvements and there does not appear to be a program to accept payments in lieu of construction. Due to the fact that the subject impacted segments are located outside the jurisdiction and regulatory authority of the City of Carlsbad, these impacts are considered significant and unmitigable. See CEQA Guidelines Section 15091 (a) (2).

- Vista Way between College Boulevard and the SR-78 westbound ramps, at level of service “F” with or without project traffic, and the project impact is significant cumulatively as indicated by the increase in volume to capacity of more than 0.02 at 0.04.

(Project Responsibility – 30.8%)

Mitigation Recommendation: The Oceanside Circulation Element Update recommends providing a westbound dedicated right-turn lane and lengthening the westbound left-turn lanes at the College Boulevard / Vista Way intersection by restriping the existing lanes. As stated in the Update, these improvements would improve peak hour operations but would not fully mitigate segment impacts, so that Overriding Considerations should be adopted.

The changes or alterations are within the responsibility and jurisdiction of the City of Oceanside. The City of Oceanside does not appear to have adopted a program to construct such improvements and there does not appear to be a program to accept payments in lieu of construction. Due to the fact that the subject impacted segment is located outside the jurisdiction and regulatory authority of the City of Carlsbad, these impacts are considered significant and unmitigable. See CEQA Guidelines Section 15091 (a) (2).

Intersections

Two intersections within Oceanside are expected to be at deficient levels of service, one has less than a significant project impact and the other has a significant cumulative impact.

- El Camino Real / Vista Way, at level of service “E” during the PM peak, but the project impact is less than significant with no project mitigation required.

- College Boulevard / Marron Road – Lake Boulevard, at level of service “E” during the PM peak hour. The project will have a significant cumulative impact at this intersection, and should contribute a fair-share of the planned mitigation.

(Project Responsibility – 61.2%)

Mitigation: The Oceanside Circulation Element Update Final EIR recommends adding a second northbound right-turn only lane on College Boulevard to eastbound Lake Boulevard.

The changes or alterations are within the responsibility and jurisdiction of the City of Oceanside. The City of Oceanside does not appear to have adopted a program to construct such improvements and there does not appear to be a program to accept payments in lieu of construction. Due to the fact that the subject impacted intersection is located outside the jurisdiction and regulatory authority of the City of Carlsbad, these impacts are considered significant and unmitigable. See CEQA Guidelines Section 15091 (a) (2).

Intersections within Carlsbad are expected to operate acceptably during peak hours as required by the City’s Growth Management Plan.

State Route 78 Mainlines

Project traffic impacts would be less than significant.

12.6 MITIGATION SUMMARY

Table 12-1 lists for all alternatives evaluated segments and intersections that will have significant project impacts, and describes the recommended mitigation measures.

12.7 CIRCULATION NETWORK ALTERNATIVES COMPARISON

Two buildout circulation network were evaluated, all using the same Quarry Creek land use plan.

Alternative 1 and 2 both included the Rancho Del Oro interchange at SR-78, while Alternative 2 deleted the extension of Marron Road through the designated Open Space area.

The preferred alternative for the Quarry Creek Investors, LLC is Alternative 2, which deletes the Marron Road extension through the Open Space area.

TABLE 12-1
MITIGATION SUMMARY

ALTERNATIVE	SIGNIFICANT IMPACT WITH PROJECT	MITIGATION
Existing Plus Project	Segments: College Blvd. (Vista Way to Plaza Dr.) Impact: Direct	<p>Since physical improvements to add lanes are infeasible, the Final, April 2012 City of Oceanside Circulation Element Update recommends reclassification of this segment of College Boulevard from a six-lane Major Arterial to a six-lane Prime Arterial. This reclassification would mitigate the project significant impacts. However, the Oceanside Update considers roadway reclassification infeasible, so that the Oceanside Circulation Element Update Final EIR recommends Overriding Considerations.</p> <p>The changes or alterations are within the responsibility and jurisdiction of the City of Oceanside. The City of Oceanside does not appear to have adopted a program to construct such improvements and there does not appear to be a program to accept payments in lieu of construction. Due to the fact that the subject impacted segment is located outside the jurisdiction and regulatory authority of the City of Carlsbad, these impacts are considered significant and unmitigable. See CEQA Guidelines Section 15091 (a) (2).</p> <p>Fair Share: 100%</p>
	Vista Way (College Blvd. to SR-78 WB Ramps) Impacts: Direct	<p>The Oceanside Circulation Element Update recommends providing a westbound dedicated right-turn lane and lengthening the westbound left-turn lanes at the College Boulevard / Vista Way intersection by restriping the existing lanes. As stated in the Update, these improvements would improve peak hour operations but would not fully mitigate segment impacts, so that Overriding Considerations should be adopted.</p> <p>The changes or alterations are within the responsibility and jurisdiction of the City of Oceanside. The City of Oceanside does not appear to have adopted a program to construct such improvements and there does not appear to be a program to accept payments in lieu of construction. Due to the fact that the subject impacted segment is located outside the jurisdiction and regulatory authority of the City of Carlsbad, these impacts are considered significant and unmitigable. See CEQA Guidelines Section 15091 (a) (2).</p> <p>Fair Share: 100%</p>
	Intersections: None	None

Note: Fair share percentages for segments are based on project % of increase in ADT above existing ADT. Fair share percentages for intersections are based on project % of increase in PM peak hour approach volumes above existing PM peak hour approach volumes.

TABLE 12-1
MITIGATION SUMMARY

ALTERNATIVE	SIGNIFICANT IMPACT WITH PROJECT	MITIGATION
Near-Term Plus Project	Segments: College Blvd. (Vista Way to Plaza Dr.) Impact: Direct	<p>Since physical improvements to add lanes are infeasible, the Final, April 2012 City of Oceanside Circulation Element Update recommends reclassification of this segment of College Boulevard from a six-lane Major Arterial to a six-lane Prime Arterial. This reclassification would mitigate the project significant impacts. However, the Oceanside Update considers roadway reclassification infeasible, so that the Oceanside Circulation Element Update Final EIR recommends Overriding Considerations.</p> <p>The changes or alterations are within the responsibility and jurisdiction of the City of Oceanside. The City of Oceanside does not appear to have adopted a program to construct such improvements and there does not appear to be a program to accept payments in lieu of construction. Due to the fact that the subject impacted segment is located outside the jurisdiction and regulatory authority of the City of Carlsbad, these impacts are considered significant and unmitigable. See CEQA Guidelines Section 15091 (a) (2). Fair Share: 45.8%</p>
	Vista Way (College Blvd. to SR-78 WB Ramps) Impacts: Direct	<p>The Oceanside Circulation Element Update recommends providing a westbound dedicated right-turn lane and lengthening the westbound left-turn lanes at the College Boulevard / Vista Way intersection by restriping the existing lanes. As stated in the Update, these improvements would improve peak hour operations but would not fully mitigate segment impacts, so that Overriding Considerations should be adopted.</p> <p>The changes or alterations are within the responsibility and jurisdiction of the City of Oceanside. The City of Oceanside does not appear to have adopted a program to construct such improvements and there does not appear to be a program to accept payments in lieu of construction. Due to the fact that the subject impacted segment is located outside the jurisdiction and regulatory authority of the City of Carlsbad, these impacts are considered significant and unmitigable. See CEQA Guidelines Section 15091 (a) (2). Fair Share: 25.5%</p>
	Intersections: None	None

Note: Fair share percentages for segments are based on project % of increase in ADT above existing ADT. Fair share percentages for intersections are based on project % of increase in PM peak hour approach volumes above existing PM peak hour approach volumes.

TABLE 12-1
MITIGATION SUMMARY

ALTERNATIVE	SIGNIFICANT IMPACT WITH PROJECT	MITIGATION
Buildout Alternative I	Segments: College Blvd. (Vista Way to Plaza Dr.) Impact: Cumulative	<p>Since physical improvements to add lanes are infeasible, the Final, April 2012 City of Oceanside Circulation Element Update recommends reclassification of this segment of College Boulevard from a six-lane Major Arterial to a six-lane Prime Arterial. This reclassification would mitigate the project significant impacts. However, the Oceanside Update considers roadway reclassification infeasible, so that the Oceanside Circulation Element Update Final EIR recommends Overriding Considerations.</p> <p>The changes or alterations are within the responsibility and jurisdiction of the City of Oceanside. The City of Oceanside does not appear to have adopted a program to construct such improvements and there does not appear to be a program to accept payments in lieu of construction. Due to the fact that the subject impacted segment is located outside the jurisdiction and regulatory authority of the City of Carlsbad, these impacts are considered significant and unmitigable. See CEQA Guidelines Section 15091 (a) (2).</p> <p>Fair Share: 15.5%</p>
	College Blvd. (Plaza Dr. to Marron Rd.) Impact: Cumulative	<p>Since physical improvements to add lanes are infeasible, the Final, April 2012 City of Oceanside Circulation Element Update recommends reclassification of this segment of College Boulevard from a six-lane Major Arterial to a six-lane Prime Arterial. This reclassification would mitigate the project significant impacts. However, the Oceanside Update considers roadway reclassification infeasible, so that the Oceanside Circulation Element Update Final EIR recommends Overriding Considerations.</p> <p>The changes or alterations are within the responsibility and jurisdiction of the City of Oceanside. The City of Oceanside does not appear to have adopted a program to construct such improvements and there does not appear to be a program to accept payments in lieu of construction. Due to the fact that the subject impacted segment is located outside the jurisdiction and regulatory authority of the City of Carlsbad, these impacts are considered significant and unmitigable. See CEQA Guidelines Section 15091 (a) (2).</p> <p>Fair Share: 32.8%</p>

Note: Fair share percentages for segments are based on project % of increase in ADT above existing ADT. Fair share percentages for intersections are based on project % of increase in PM peak hour approach volumes above existing PM peak hour approach volumes.

TABLE 12-1
MITIGATION SUMMARY

ALTERNATIVE	SIGNIFICANT IMPACT WITH PROJECT	MITIGATION
Buildout Alternative 1 (Continued)	College Blvd. (Marron Rd. to South City Limit) Impact: Cumulative	<p>The Final, April 2012 City of Oceanside Circulation Element Update recommends reclassification of this segment of College Boulevard from a four-lane Major Arterial to a six-lane Major Arterial. This reclassification would mitigate the project significant impacts. However, the Oceanside Update considers roadway reclassification and widening infeasible, so that the Oceanside Circulation Element Update Final EIR recommends Overriding Considerations.</p> <p>The changes or alterations are within the responsibility and jurisdiction of the City of Oceanside. The City of Oceanside does not appear to have adopted a program to construct such improvements and there does not appear to be a program to accept payments in lieu of construction. Due to the fact that the subject impacted segment is located outside the jurisdiction and regulatory authority of the City of Carlsbad, these impacts are considered significant and unmitigable. See CEQA Guidelines Section 15091 (a) (2). Fair Share: 6.4%</p>
	Intersections:	
	College Blvd. / Marron Rd. - Lake Blvd) Impact: Cumulative	<p>The Oceanside Circulation Element Update Final EIR recommends adding a second northbound right-turn only lane on College Boulevard to eastbound Lake Boulevard.</p> <p>The changes or alterations are within the responsibility and jurisdiction of the City of Oceanside. The City of Oceanside does not appear to have adopted a program to construct such improvements and there does not appear to be a program to accept payments in lieu of construction. Due to the fact that the subject impacted intersection is located outside the jurisdiction and regulatory authority of the City of Carlsbad, these impacts are considered significant and unmitigable. See CEQA Guidelines Section 15091 (a) (2). Fair Share: 13.3%</p>

Note: Fair share percentages for segments are based on project % of increase in ADT above existing ADT. Fair share percentages for intersections are based on project % of increase in PM peak hour approach volumes above existing PM peak hour approach volumes.

TABLE 12-1
MITIGATION SUMMARY

ALTERNATIVE	SIGNIFICANT IMPACT WITH PROJECT	MITIGATION
Buildout Alternative 2	Segments: College Blvd. (Vista Way to Plaza Dr.) Impact: Cumulative	<p>Since physical improvements to add lanes are infeasible, the Final, April 2012 City of Oceanside Circulation Element Update recommends reclassification of this segment of College Boulevard from a six-lane Major Arterial to a six-lane Prime Arterial. This reclassification would mitigate the project significant impacts. However, the Oceanside Update considers roadway reclassification infeasible, so that the Oceanside Circulation Element Update Final EIR recommends Overriding Considerations.</p> <p>The changes or alterations are within the responsibility and jurisdiction of the City of Oceanside. The City of Oceanside does not appear to have adopted a program to construct such improvements and there does not appear to be a program to accept payments in lieu of construction. Due to the fact that the subject impacted segment is located outside the jurisdiction and regulatory authority of the City of Carlsbad, these impacts are considered significant and unmitigable. See CEQA Guidelines Section 15091 (a) (2). Fair Share: 20.1%</p>
	College Blvd. (Plaza Dr. to Marron Rd.) Impact: Cumulative	<p>Since physical improvements to add lanes are infeasible, the Final, April 2012 City of Oceanside Circulation Element Update recommends reclassification of this segment of College Boulevard from a six-lane Major Arterial to a six-lane Prime Arterial. This reclassification would mitigate the project significant impacts. However, the Oceanside Update considers roadway reclassification infeasible, so that the Oceanside Circulation Element Update Final EIR recommends Overriding Considerations.</p> <p>The changes or alterations are within the responsibility and jurisdiction of the City of Oceanside. The City of Oceanside does not appear to have adopted a program to construct such improvements and there does not appear to be a program to accept payments in lieu of construction. Due to the fact that the subject impacted segment is located outside the jurisdiction and regulatory authority of the City of Carlsbad, these impacts are considered significant and unmitigable. See CEQA Guidelines Section 15091 (a) (2). Fair Share: 28.6%</p>
	College Blvd. (Marron Rd. to South City Limit) Impact: Cumulative	<p>The Final, April 2012 City of Oceanside Circulation Element Update recommends reclassification of this segment of College Boulevard from a four-lane Major Arterial to a six-lane Major Arterial. This reclassification would mitigate the project significant impacts. However, the Oceanside Update considers roadway reclassification and widening infeasible, so that the Oceanside Circulation Element Update Final EIR recommends Overriding Considerations.</p> <p>The changes or alterations are within the responsibility and jurisdiction of the City of Oceanside. The City of Oceanside does not appear to have adopted a program to construct such improvements and there does not appear to be a program to accept payments in lieu of construction. Due to the fact that the subject impacted segment is located outside the jurisdiction and regulatory authority of the City of Carlsbad, these impacts are considered significant and unmitigable. See CEQA Guidelines Section 1509 (a) (2). Fair Share: 7.3%</p>

Note: Fair share percentages for segments are based on project % of increase in ADT above existing ADT. Fair share percentages for intersections are based on project % of increase in PM peak hour approach volumes above existing PM peak hour approach volumes.

TABLE 12-1
MITIGATION SUMMARY

ALTERNATIVE	SIGNIFICANT IMPACT WITH PROJECT	MITIGATION
Buildout Alternative 2 (Continued)	Vista Way (College Blvd. to SR-78 WB Ramps) Impacts: Direct	<p>The Oceanside Circulation Element Update recommends providing a westbound dedicated right-turn lane and lengthening the westbound left-turn lanes at the College Boulevard / Vista Way intersection by restriping the existing lanes. As stated in the Update, these improvements would improve peak hour operations but would not fully mitigate segment impacts, so that Overriding Considerations should be adopted.</p> <p>The changes or alterations are within the responsibility and jurisdiction of the City of Oceanside. The City of Oceanside does not appear to have adopted a program to construct such improvements and there does not appear to be a program to accept payments in lieu of construction. Due to the fact that the subject impacted segment is located outside the jurisdiction and regulatory authority of the City of Carlsbad, these impacts are considered significant and unmitigable. See CEQA Guidelines Section 15091 (a) (2). Fair Share: 30.8%</p>
	Intersections:	
	College Blvd. / Marron Rd. - Lake Blvd) Impact: Cumulative	<p>The Oceanside Circulation Element Update Final EIR recommends adding a second northbound right-turn only lane on College Boulevard to eastbound Lake Boulevard.</p> <p>The changes or alterations are within the responsibility and jurisdiction of the City of Oceanside. The City of Oceanside does not appear to have adopted a program to construct such improvements and there does not appear to be a program to accept payments in lieu of construction. Due to the fact that the subject impacted intersection is located outside the jurisdiction and regulatory authority of the City of Carlsbad, these impacts are considered significant and unmitigable. See CEQA Guidelines Section 15091 (a) (2). Fair Share: 61.2%</p>

Note: Fair share percentages for segments are based on project % of increase in ADT above existing ADT. Fair share percentages for intersections are based on project % of increase in PM peak hour approach volumes above existing PM peak hour approach volumes.

To determine if the Marron Road deletion causes significant impacts, a comparison of intersection levels of service for the alternatives shows that only two intersections would be at unacceptable levels of service (LOS “E” or “F”), without mitigation, for Alternatives 1 and 2.

For Alternatives 1 and 2, both of these locations are at acceptable levels of service. Since alternative 2 includes the deletion of Marron Road, and all evaluated intersections would be at acceptable levels of service after planned mitigation consistent with the Oceanside General Plan Circulation Element Update, it can be concluded that the Alternative 2 deletion of Marron Road would have less than significant impacts.

To isolate the effect of deleting Marron Road with the Rancho Del Oro Road interchange, a comparison of intersection delay at the two intersections with acceptable levels of service after mitigation was conducted for Alternatives 1 and 2.

Table 12-2 below shows the results of this comparison.

Since both intersections are at an acceptable level of service after the same mitigation was applied to both alternatives, it can be stated that the deletion of Marron Road would have less than significant impacts to study area intersections.

Table 12-2

Alternative 1 and Alternative 2 Intersection Delay Comparison

	WITH MARRON RD.	WITHOUT MARRON RD.
	Alternative 1	Alternative 2
ECR / Vista Way (PM)	45.6 LOS D	47.8 LOS D
College Blvd. / Marron Rd. – Lake Blvd.	55.0 LOS D	54.9 LOS D

As shown, without Marron road, the increase in PM peak hour intersection delay at these two locations is within the allowable delay for an acceptable level of service “D”, so that it can be concluded that the Alternative 2 deletion of Marron Road would have less than significant impacts to study area intersections.

13.0 REFERENCES

San Diego Region Traffic Engineer's Council (SANTEC) and Institute of Transportation Engineers (ITE),
California Border Section, Guidelines for Congestion Management Program (CMP)
Traffic Impact Report, San Diego, CA

San Diego Association of Governments, 2006 Congestion Management Program Update, Appendix D,
July 2006, San Diego, CA

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This report is site and time specific and is intended for a one-time use for this intended project under the conditions described as "Proposed Project". Any changes or delay in implementation may require re-analysis and re-consideration by the public agency granting approvals. California land development planning involves subjective political considerations as well as frequently re-interpreted principals of law as well as changes in regulations, policies, guidelines and procedures. Urban Systems and their professionals make no warrant, either express or implied, regarding our findings, recommendations, or professional advice as to the ability to successfully accomplish this land development project.

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APPENDIX A

- **Existing Traffic Count Summaries**
- **Existing Intersection LOS Worksheets**
- **Project Plus Existing Intersection LOS Worksheets**

Transition between LOS "C" and LOS "D" Criteria

(Reference Highway Capacity Manual)

BASIC FREEWAY SEGMENTS @ 65 mi/hr

LOS	Maximum Density (pc/mi/ln)	Minimum Speed (mph)	Maximum v/c *	Maximum Service Flow Rate (pc/hr/ln)
A	11	65.0	0.30	710
B	18	65.0	0.50	1170
C	26	64.6	0.71	1680
D	35	59.7	0.89	2090
E	45	52.2	1.00	2350

*USE FOR FREEWAY SEGMENTS

SIGNALIZED INTERSECTIONS and RAMP TERMINALS

LOS	Control Delay per Vehicle (sec/veh)
A	≤ 10
B	> 10 - 20
C	> 20 - 35
D	> 35 - 55
E	> 55 - 80
F	> 80

MULTI-LANE HIGHWAYS @ 55 mi/hr

LOS	Maximum Density (pc/mi/ln)	Minimum Speed (mph)	Maximum v/c	Maximum Service Flow Rate (pc/hr/ln)
A	11	55.0	0.29	600
B	18	55.0	0.47	990
C	26	54.9	0.68	1430
D	35	52.9	0.88	1850
E	41	51.2	1.00	2100

***** Dotted line represents the transition between LOS "C" and LOS "D"

PEAK HOUR VOLUME DATA

Peak hour volume data consists of hourly volume relationships and data location. The hourly volumes are expressed as a percentage of the Annual Average Daily Traffic (AADT). The percentages are shown for both the AM and the PM peak periods.

The principle data described here are the K factor, the D factor and their product (KD). The K factor is the percentage of AADT during the peak hour for both directions of travel. The D factor is the percentage of the peak hour travel in the peak direction. KD multiplied with the AADT gives the one way peak period directional flow rate or the design hourly volume (DHV). The design hourly volume is used for either Operational Analysis or Design Analysis. Refer to the 2000 Highway Capacity Manual for more details.

Following is a glossary of terms used in this listing of peak hour volume data:

Dir	Indicates direction of travel for peak volume
AADT	Annual Average Daily Traffic in vehicles per day (vpd).
AM Peak	Represents the morning peak period for traffic analysis
CS	Control Station Number, Caltrans identification number for monitoring site.
CO	County abbreviation used by Caltrans
D	D factor. The percentage of traffic in the peak direction during the peak hour. Values in this book are derived by dividing the measured PHV by the sum of both directions of travel during the peak hour.
DAY	Day of week for the peak volume.
DDHV	The directional design hour volume, in vehicles per hour (vph) DDHV=AADTxKxD. See equation (8-1) on page 8-11 of the 2000 Highway Capacity Manual.
DI	Caltrans has twelve transportation districts statewide. This abbreviation identifies the district in which the count station is located.
HR	The ending time for the peak hour volume listed. The volume observed from 1 to 2 would be recorded as 2.

K	The percentage of the AADT in both directions during the peak hour. Values in this table are derived by dividing the measured 2-way PHV by the AADT.
KD	The product of K and D. The percentage of AADT in the peak direction during the peak hour. Values in this table are derived by dividing the measured 1-way PHV by the AADT.
LEG	For traffic counting purposes, a highway intersection or interchange is assigned two legs according to increasing postmiles (route direction) and with a postmile reference at the center of the intersection or interchange. The volume of traffic on each leg is denoted by an A, B or O. A = ahead leg, B = back leg, and O – traffic volume being same for both back and ahead legs.
MNTH	The month that the peak volume occurred.
PHV	Peak Hour Volume in the peak direction. A one way volume in vehicles per hour (vph) as used here. The PHV is analogous to the DDHV as used for design purposes.
PM	The Post Mile is the mileage measured from the county line, or from the beginning of a route. Each postmile along a route in a county is a unique location on the state highway system.
PM Peak	Represents the afternoon peak period for traffic analysis.
PRE	The postmile may have a prefix like R, T, L, M, etc. When a length of highway is changed due to construction or realignment, new postmile values are assigned. To distinguish the new values from the old, an alpha code is prefixed to the new postmile.
RTE	The state highway route number
YR	The year when the count was made. Traffic counting is on a 3-year cycle.

PEAK HOUR VOLUME DATA

45% 870 & 60% 405 PHV

DI	RTE	CO	PRE	PM CS	LEG	YR	Dir	1 WAY			%			KD	HR	DAY	MNT	%					
								PHV	K	D	%	K	D						%				
11	076	SD	R	17.30	101	A	08	E	579	7.89	60.13	4.74	11	SUN	MAY	E	678	9.94	55.89	5.56	14	SUN	FEB
11	076	SD	R	17.30	830	B	08	E	1001	7.21	52.99	3.82	12	SAT	MAY	W	1117	8.39	50.87	4.27	16	FRI	FEB
11	076	SD		32.87	831	B	08	E	394	7.97	62.44	4.98	12	SUN	JAN	W	428	8.39	64.46	5.41	17	SUN	MAR
11	076	SD		52.32	832	B	08	E	199	16.27	63.78	10.38	11	SAT	MAR	W	279	20.86	69.75	14.55	14	SUN	MAR
04	077	ALA		.098	29	A	06	S	1129	7.41	72.1	5.34	7	WED	FEB	N	887	7.89	53.15	4.19	16	TUE	FEB
11	078	SD	ECR	1.498	983	B	08	W	5197	7.18	59.39	4.26	7	THU	SEP	E	5496	8.15	55.35	4.51	16	WED	OCT
11	078	SD		4.384	971	A	08	W	4986	7.29	52.38	3.82	12	SAT	FEB	E	5518	7.79	54.2	4.22	16	FRI	MAR
11	078	SD		15.49	987	A	07	W	5925	6.81	58.08	3.96	7	THU	APR	E	6390	7.74	55.15	4.27	16	THU	NOV
11	078	SD	N	17.68	877	B	08	W	1870	6.71	53.44	3.59	8	THU	SEP	E	2491	8.12	58.82	4.78	17	WED	AUG
11	078	SD	T	19.09	878	B	08	W	826	8.29	52.92	4.39	12	SAT	DEC	E	888	8.77	53.79	4.72	17	FRI	OCT
11	078	SD	R	22.56	837	A	08	E	832	12.58	63.42	7.98	12	SUN	FEB	W	926	10.83	82.02	8.88	16	MON	MAY
11	078	SD		35.52	838	B	08	W	464	7.48	58.59	4.38	7	WED	SEP	E	454	7.82	54.77	4.28	16	FRI	SEP
11	078	SD		51.11	711	B	08	E	497	12.37	72.45	8.96	11	SAT	MAR	W	569	19.41	52.88	10.26	13	SUN	MAR
11	078	SD		58.13	712	B	08	W	373	13.07	56.26	7.36	12	SAT	MAR	W	383	13.59	55.59	7.55	14	SAT	MAR
11	078	SD		58.13	714	A	08	W	263	9.55	69.39	6.63	12	SUN	NOV	W	282	11.65	61.04	7.11	14	THU	MAR
11	078	SD		70.01	973	A	08	W	317	28.97	65.63	19.02	10	SUN	MAR	W	479	37.61	76.4	28.73	14	SUN	MAR
11	078	IMP		13.17	840	B	08	W	128	22.93	68.09	15.61	9	SAT	FEB	W	120	28.9	50.63	14.63	13	SAT	NOV
11	078	IMP		13.18	841	A	08	E	885	8	58.03	4.64	11	SAT	DEC	E	969	9.21	55.18	5.08	16	FRI	JAN
11	078	IMP		15.04	420	B	08	W	504	8.13	79.62	6.47	10	SUN	OCT	W	509	8.72	74.96	6.53	18	SAT	NOV
11	078	IMP		15.04	842	A	08	W	390	11.09	83.69	9.28	9	SUN	OCT	E	379	10.75	83.85	9.02	20	FRI	FEB
11	078	IMP		18.65	843	A	08	W	406	14.45	86.94	12.57	11	SUN	OCT	W	356	12.97	84.96	11.02	14	SUN	NOV
11	078	IMP		21.02	719	A	08	W	370	26.49	79.23	20.99	12	SUN	FEB	W	365	24.33	85.08	20.7	16	SUN	NOV
11	078	IMP		80.74	844	B	08	E	122	10.42	67.4	7.02	12	SUN	MAR	W	131	11.46	65.83	7.54	16	WED	NOV
11	079	SD	L	.044	713	A	08	S	279	10.07	55.25	5.56	12	SUN	OCT	S	326	11.51	56.5	6.5	16	FRI	AUG
11	079	SD		27.37	849	A	08	N	362	15.51	73.58	11.41	10	SAT	MAR	S	454	19.26	74.3	14.31	15	SUN	MAR
11	079	SD		53.04	845	B	08	N	186	16.82	58.86	9.9	12	SUN	MAR	N	208	14.37	77.04	11.07	13	SUN	OCT
08	079	RIV		2.27	941	B	07	N	234	12.01	60.62	7.28	11	SUN	MAR	N	263	12.45	65.75	8.18	13	SUN	MAR
08	079	RIV	R	19.16	952	B	07	S	393	7.15	64.96	4.64	6	MON	JUL	N	460	8.05	67.55	5.43	15	THU	JUN
04	080	ALA		5.823	247	A	06	W	9989	5.47	68.4	3.74	6	THU	FEB	E	9257	6.28	55.22	3.47	16	MON	FEB
04	080	CC		.216	546	B	06	W	7307	5.29	75.69	4.01	6	TUE	NOV	E	6653	6.24	58.42	3.65	16	SAT	MAY
04	080	CC		5.983	134	A	06	E	6992	6.93	54.71	3.79	11	FRI	DEC	E	7024	6.58	57.91	3.81	16	TUE	JUN
04	080	CC		7.615	902	O	08	W	7338	6.07	74.23	4.5	6	THU	APR	E	6826	6.83	61.3	4.19	16	MON	APR
04	080	CC		10.02	548	B	06	W	7637	5.97	69.2	4.13	6	THU	MAR	E	7313	6.8	58.11	3.95	16	TUE	JUN

SR-73
417

2009

Annual Average Daily Truck Traffic
on the
California State Highway System

Compiled by
Traffic and Vehicle Data Systems
State of California
Business, Transportation and Housing Agency
Department of Transportation
Prepared in cooperation with the
U.S. Department of Transportation
Federal Highway Administration
DECEMBER 2010

PREFACE

The annual average daily truck traffic is shown for selected locations on the State Highway System. Truck traffic is classified by number of axles. The two-axle class includes 11/2-ton trucks with dual rear tires and excludes pickups and vans with only four tires. Total vehicle AADT for the same year is taken from the Traffic Volumes on California State Highways booklet also published by the California Department of Transportation.

Annual average daily truck traffic is the total truck traffic volume divided by 365 days. Truck counting is done throughout the state in a program of continuous truck count sampling. The sampling includes a partial day, 24-hour, 7-day and continuous vehicle classification counts. The partial day and 24-hour counts are usually made on high volume, urban highways. The 7-day counts are made on low volume, rural highways. The counts are usually taken only once in the year. About one-sixth of the locations are counted annually. The resulting counts are adjusted to an estimate of annual average daily truck traffic by compensating for seasonal influence, weekly variation, and other variables that may be present. Annual average daily truck traffic is necessary for presenting a statewide picture of truck flow, evaluating truck trends, planning and designing highways and for other purposes.

The column entitled "Year Ver/Est" indicates the year the truck percents were either verified (V) or estimated (E). It represents the year the truck percentages were verified (counted continuously or quarterly) or estimated. Selected points on a route will be counted and the ones in between will be estimated. At some locations, truck volumes are static and no new counts are made until there is a change in traffic on the route. All truck AADT's listed are for 2008.

California State Highways are listed in legislative route number order. The legislative route number is the same as the signed route number in most cases.

Each count location is identified by the post mile value corresponding to that point on the highway. The post mile values increase from the beginning of a route within a county to the next county line. The post mile values start over again at each county line. Post mile values increase usually from south to north or west to east depending on the general direction the route follows within the state.

The post mile at a given location will remain the same year after year except in a few cases when the route was relocated/redesignated. When a section of road is relocated, new post miles (usually noted by an alphabetical prefix such as "R" or "M") are established for it. If relocation results in a change in length, "post mile equations" are introduced so that post miles on the remainder of the route within the county will remain unchanged. Post mile equations are not shown on this listing.

SP-78
617

RTE	DIST	CNTY	POST MILE	L E G DESCRIPTION	VEHICLE AADT TOTAL	TRUCK AADT TOTAL	TRUCK % TOT VEH	TRUCK AADT				% TRUCK AADT				EAL 2-WAY (1000)	YEAR VER/ EST
								By Axle	By Axle	By Axle	By Axle	By Axle	By Axle	By Axle	By Axle		
								2	3	4	5+	2	3	4	5+		
078	11	SD	.004	A OCEANSIDE, JCT. RTE. 5	75000	3503	4.67	1644	355	272	1233	46.92	10.12	7.77	35.19	556	07E
078	11	SD	1.498	A OCEANSIDE, EL CAMINO REAL	135000	6575	4.87	3085	665	511	2314	46.92	10.12	7.77	35.19	1043	07E
078	11	SD	5.944	B VISTA, MELROSE DRIVE	131000	6773	5.17	3178	685	526	2383	46.92	10.12	7.77	35.19	1074	07E
078	11	SD	5.944	A VISTA, MELROSE DRIVE	130000	6201	4.77	2910	628	482	2182	46.92	10.12	7.77	35.19	983	07E
078	11	SD	R16.539	B ESCONDIDO, JCT. RTE. 15	160000	7280	4.55	3416	737	566	2562	46.92	10.12	7.77	35.19	1154	07V
078	11	SD	R17.268	B ESCONDIDO, CENTRE CITY PARKWAY	81000	4293	5.3	2340	404	232	1318	54.5	9.4	5.4	30.7	608	97E
078	11	SD	N17.68	B ESCONDIDO, BROADWAY/LINCOLN PARKWAY	53000	530	1	283	126	81	40	53.4	23.8	15.3	7.5	47	86E
078	11	SD	T19.094	B ESCONDIDO ASH STREET	18200	1092	6	762	134	26	169	69.8	12.3	2.4	15.5	101	96E
078	11	SD	T19.094	A ESCONDIDO ASH STREET	22500	1350	6	942	166	31	211	69.8	12.3	2.3	15.6	126	96E
078	11	SD	18.94	A ESCONDIDO, GRAND AVENUE	19800	1208	6.1	843	149	29	187	69.8	12.3	2.4	15.5	112	96E
078	11	SD	R27.315	A BANDY CANYON ROAD	9200	865	9.4	433	138	53	241	50.1	15.9	6.1	27.9	119	81E
078	11	SD	35.519	B JCT. RTE. 67 SOUTHWEST	10500	231	2.2	92	52	10	78	39.8	22.3	4.2	33.7	36	87E
078	11	SD	35.519	A JCT. RTE. 67 SOUTHWEST	21800	1199	5.5	829	137	53	181	69.1	11.4	4.4	15.1	112	87V
078	11	SD	51.108	B WEST JCT. RTE. 79	5600	336	6	238	39	29	30	70.9	11.6	8.5	9	27	93V
078	11	SD	51.108	A WEST JCT. RTE. 79	4250	306	7.2	239	37	17	13	78	12.2	5.4	4.4	19	88V
078	11	SD	58.133	B EAST JCT. RTE. 79	4950	822	16.6	645	103	37	37	78.5	12.5	4.5	4.5	50	88E
078	11	SD	58.133	A EAST JCT. RTE. 79	3850	936	24.3	756	112	33	35	80.8	12	3.5	3.7	54	88E

SR-78
7/7

TABLE 4.2-5
Existing Segment Volumes on Segments (cont'd.)

LAKE
BLVD.

1/1

Street	Lanes ^a	Classification	LOS E Capacity ^b	ADT ^c	LOS ^d
El Camino Real to Mission Avenue	4TWLT	Secondary Collector	30,000	21,000	D
Mission Ave. to SR-76	4U	Major Arterial	40,000	20,400	B
El Camino Real					
Douglas Drive to Mission Ave.	4TWLT	Major Arterial	40,000	22,600	C
Mission Avenue to Mesa Drive	4D	Major Arterial	40,000	21,200	C
Mesa Dr. to Oceanside Blvd.	4D	Major Arterial	40,000	33,000	D
Oceanside Boulevard to Fire Mountain Road	6D	Prime Arterial	60,000	35,800	C
Fire Mountain Rd to Via Las Rosas	6D	Prime Arterial	60,000	36,200	C
Via Las Rosas to Vista Way	6D	Prime Arterial	60,000	43,700	C
Vista Way to SR-78	6D	Prime Arterial	60,000	51,100	D
Emerald Drive					
Lake Boulevard to Sunset Dr	4TWLT	Secondary Collector	30,000	2,300	A
Frazee Road					
Old Grove Road to SR-76	4D	Major Arterial	40,000	5,500	A
SR-76 to College Boulevard	4D	Major Arterial	40,000	9,300	A
College Boulevard to Sagewood Drive	2D/U	Collector	10,000	3,600	A
Lake Boulevard					
College Boulevard to Thunder Drive	4TWLT	Secondary Collector	30,000	13,100	B
Thunder Drive to Sundown Lane	2TWLT	Collector	15,000	14,800	E
Sundown Lane to Sky Haven Lane	4TWLT	Secondary Collector	30,000	14,800	C
Sky Haven Lane to Cannon Road	4TWLT	Secondary Collector	30,000	13,400	B
Melrose Drive					
SR-76 to Spur Avenue	4D	Major Arterial	40,000	9,300	A
N. Santa Fe Avenue to Oceanside Boulevard	2/4D	Major Arterial	40,000	14,300	A
Oceanside Boulevard to City Limits	4D	Major Arterial	40,000	19,400	B
City Limits to Cannon Road	6D	Prime Arterial	60,000	27,400	B
Cannon Road to Southern City Limits	6D	Prime Arterial	60,000	30,000	B
Mesa Drive					
Mission Avenue to Foussat Road	2U	Collector	10,000	5,600	C
Foussat Road to El Camino Real	2TWLT	Collector	15,000	4,700	A
El Camino Real to Rancho Del Oro Road	4U/TWLT /D	Secondary Collector	30,000	13,300	B

USE THIS VOLUME ONLY

OCEANSIDE
SEGMENT LOS

(1/1)

TABLE 4.2-3
Circulation Element Roadway Classification LOS & Capacity

Class	Lanes	Cross Section ¹	Level of Service				
			A	B	C	D	E
Expressway	6	102/160, 122/200	30,000	42,000	60,000	70,000	80,000
Expressway	4	102/160, 122/200	25,000	35,000	50,000	55,000	60,000
Prime Arterial	6	104/124	25,000	35,000	50,000	55,000	60,000
6-Lane Major Arterial	6	104/124	20,000	28,000	40,000	45,000	50,000
5-Lane Major Arterial ²	5	102/122	17,500	24,500	35,000	40,000	45,000
4-Lane Major Arterial	4	80/100	15,000	21,000	30,000	35,000	40,000
Secondary Collector (4 lanes with 2-way left turn lane)	4	64/84	10,000	14,000	20,000	25,000	30,000
Secondary Collector (4 lanes without 2-way left-turn lane, with left turn pockets)	4	54/74, 60/80	9,000	13,000	18,000	22,000	25,000
Collector (commercial fronting, 2-lanes with 2-way left turn lane) ³	2	50/70	5,000	7,000	10,000	13,000	15,000
Collector (residential streets in the Circulation Element or industrial fronting)	2	40/60, 50/70	4,000	5,500	7,500	9,000	10,000
Local Street (residential streets NOT in the Circulation Element)	2	36/56, 40/60	—	—	2,200	—	—

- Note:
1. Cross sections are listed as curb-to-curb width/total right-of-way width, in feet.
 2. Vandegrift Boulevard is the only roadway designated as a 5-Lane Major Arterial. It is not intended that other roadways be built to 5-lane Major Arterial standards.
 3. This capacity will also be assumed for two-lane, one-way collectors.

Source: IBI Group, 2011.

Based on discussion with the City and a review of the roadway level of service standards and capacities throughout the San Diego region and southern California, it was determined that LOS D be used as the segment level threshold for acceptable LOS in this study.

For facilities that are forecast to operate at a deficient LOS in the final selected preferred alternative condition, mitigation measures are recommended to return the LOS value back to an acceptable level of service. The City may decide to give a statement of overriding consideration for a facility with unavoidable significant impacts that cannot be mitigated to achieve the desirable LOS threshold. According to the California Environmental Quality Act (CEQA), the City must state the specific reasons supporting the action based on the Final EIR or other substantial evidence in the record.

SOURCE OF SEGMENT LOS FOR OCEANSIDE

MetroCount Traffic Executive Event Counts

729 -- English (ENU)

Datasets:

Site: [1109.05] COLLEGE BLVD (LAKE BLVD-PLAZA DR) NORTHBOUND
Input A: 1 - North bound. - Lane= 0, Added to totals. (/2.000)
Input B: 0 - Unused or unknown. - Lane= 0, Excluded from totals.
Survey Duration: 13:31 Wednesday, January 19, 2011 => 11:56 Friday, January 21, 2011
File: 1109.05.N21Jan2011.EC0 (Regular)
Data type: Axle sensors - Separate (Count)

Profile:

Filter time: 0:00 Thursday, January 20, 2011 => 0:00 Friday, January 21, 2011
In profile: Events = 18114 / 33836 (53.53%)

*** Thursday, January 20, 2011=18114, 15 minute drops**

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
72	43	36	50	72	243	611	1027	1019	865	936	1077	1239	1298	1419	1396	1472	1690	1184	827	589	457	315	181	
31	13	11	9	16	41	117	180	336	226	240	242	313	311	335	321	336	395	390	242	170	125	80	52	-
17	9	10	13	9	59	147	262	236	215	225	262	283	311	321	367	364	482	329	235	134	136	82	49	-
8	11	4	11	24	73	171	247	198	195	220	298	313	319	360	341	361	396	252	195	144	96	86	48	-
16	10	11	17	23	70	177	338	250	230	252	276	330	359	404	367	412	418	215	156	142	101	68	33	-

AM Peak 1145 - 1245 (1184), AM PHF=0.95

MetroCount Traffic Executive Event Counts

730 -- English (ENU)

Datasets:

Site: [1109.05] COLLEGE BLVD (LAKE BLVD-PLAZA DR) SOUTHBOUND
Input A: 3 - South bound. - Lane= 0, Added to totals. (/2.000)
Input B: 0 - Unused or unknown. - Lane= 0, Excluded from totals.
Survey Duration: 13:33 Wednesday, January 19, 2011 => 11:53 Friday, January 21, 2011
File: 1109.05.S21Jan2011.EC0 (Regular)
Data type: Axle sensors - Separate (Count)

Profile:

Filter time: 0:00 Thursday, January 20, 2011 => 0:00 Friday, January 21, 2011
In profile: Events = 18105 / 33571 (53.93%)

*** Thursday, January 20, 2011=18105, 15 minute drops**

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
54	62	43	62	180	394	803	1298	1136	925	976	1120	1245	1217	1224	1257	1286	1350	1087	843	638	461	281	167	
13	17	12	13	31	28	131	280	278	220	236	251	290	322	316	323	298	331	314	240	177	121	98	40	-
17	14	12	11	34	62	171	309	323	206	247	273	308	299	294	312	321	362	263	233	167	116	72	56	-
16	14	9	12	50	135	220	354	290	250	248	285	301	285	316	321	345	330	260	199	149	129	57	43	-
8	17	10	26	66	170	281	356	246	250	246	311	346	313	299	302	323	327	250	172	145	97	55	29	-

AM Peak 0730 - 0830 (1310), AM PHF=0.92

MetroCount Traffic Executive Event Counts

448 -- English (ENU)

Datasets:

Site: [1109.08] MARRON RD (QUARRY CREEK CENTER-COLLEGE BLVD) EASTBOUND
Input A: 6 - West bound A>B, East bound B>A. - Lane= 0, Excluded from totals.
Input B: 0 - Unused or unknown. - Lane= 0, Added to totals. (/2.000)
Survey Duration: 14:45 Monday, January 24, 2011 => 13:40 Wednesday, January 26, 2011
File: 1109.0826Jan2011.EC0 (Regular)
Data type: Axle sensors - Paired (Class/Speed/Count)

Profile:

Filter time: 0:00 Tuesday, January 25, 2011 => 0:00 Wednesday, January 26, 2011
In profile: Events = 16907 / 26895 (62.86%)

* Tuesday, January 25, 2011=9186, 15 minute drops

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
5	6	5	4	16	36	94	231	320	400	529	660	723	724	788	787	800	834	707	570	454	294	147	59	-
1	4	3	0	5	9	17	56	66	84	129	159	201	192	184	192	197	231	198	164	146	76	60	22	-
0	2	1	1	1	5	21	49	83	84	126	152	151	185	222	183	202	215	199	132	117	79	26	19	-
2	0	0	2	7	14	27	53	100	114	134	185	183	178	179	204	221	199	165	155	99	80	27	11	-
2	0	1	1	3	8	30	73	71	120	140	165	188	170	204	208	181	190	146	120	93	60	34	7	-

AM Peak 1115 - 1215 (702), AM PHF=0.87

MetroCount Traffic Executive Event Counts

448 -- English (ENU)

Datasets:

Site: [1109.08] MARRON RD (QUARRY CREEK CENTER-COLLEGE BLVD) SOUTHBOUND
Input A: 6 - West bound A>B, East bound B>A. - Lane= 0, Excluded from totals.
Input B: 0 - Unused or unknown. - Lane= 0, Added to totals. (/2.000)
Survey Duration: 14:45 Monday, January 24, 2011 => 13:40 Wednesday, January 26, 2011
File: 1109.0826Jan2011.EC0 (Regular)
Data type: Axle sensors - Paired (Class/Speed/Count)

Profile:

Filter time: 0:00 Tuesday, January 25, 2011 => 0:00 Wednesday, January 26, 2011
In profile: Events = 16907 / 26895 (62.86%)

* Tuesday, January 25, 2011=9186, 15 minute drops

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
5	6	5	4	16	36	94	231	320	400	529	660	723	724	788	787	800	834	707	570	454	294	147	59	-
1	4	3	0	5	9	17	56	66	84	129	159	201	192	184	192	197	231	198	164	146	76	60	22	-
0	2	1	1	1	5	21	49	83	84	126	152	151	185	222	183	202	215	199	132	117	79	26	19	-
2	0	0	2	7	14	27	53	100	114	134	185	183	178	179	204	221	199	165	155	99	80	27	11	-
2	0	1	1	3	8	30	73	71	120	140	165	188	170	204	208	181	190	146	120	93	60	34	7	-

AM Peak 1115 - 1215 (702), AM PHF=0.87

MetroCount Traffic Executive Event Counts

447 -- English (ENU)

Datasets:

Site: [1109.08] MARRON RD (QUARRY CREEK CENTER-COLLEGE BLVD) WESTBOUND
Input A: 6 - West bound A>B, East bound B>A. - Lane= 0, Added to totals. (/2.000)
Input B: 0 - Unused or unknown. - Lane= 0, Excluded from totals.
Survey Duration: 14:45 Monday, January 24, 2011 => 13:40 Wednesday, January 26, 2011
File: 1109.0826Jan2011.EC0 (Regular)
Data type: Axle sensors - Paired (Class/Speed/Count)

Profile:

Filter time: 0:00 Tuesday, January 25, 2011 => 0:00 Wednesday, January 26, 2011
In profile: Events = 16907 / 26895 (62.86%)

* Tuesday, January 25, 2011=7722, 15 minute drops

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
5	4	7	9	30	51	107	214	330	414	508	638	691	631	632	670	637	638	510	422	279	193	76	30	-
1	2	2	4	2	8	14	41	86	85	114	162	165	162	151	166	155	177	134	113	89	49	27	14	-
0	2	1	2	3	6	21	41	83	96	124	142	174	164	171	149	163	156	133	127	64	62	20	6	-
4	0	1	1	7	8	26	58	77	122	135	163	184	154	153	158	171	155	131	86	58	46	18	6	-
0	0	3	2	18	30	46	74	85	113	136	171	168	151	158	197	148	151	113	96	69	36	11	4	-

AM Peak 1145 - 1245 (894), AM PHF=0.94

MetroCount Traffic Executive Event Counts

449 -- English (ENU)

Datasets:

Site: [1109.09] LAKE BLVD (COLLEGE BLVD-THUNDER DR) EASTBOUND
Input A: 2 - East bound. - Lane= 0, Added to totals. (/2.000)
Input B: 0 - Unused or unknown. - Lane= 0, Excluded from totals.
Survey Duration: 15:11 Monday, January 24, 2011 => 13:36 Wednesday, January 26, 2011
File: 1109.09.E26Jan2011.EC0 (Regular)
Data type: Axle sensors - Separate (Count)

Profile:

Filter time: 0:00 Tuesday, January 25, 2011 => 0:00 Wednesday, January 26, 2011
In profile: Events = 7181 / 11908 (60.31%)

*** Tuesday, January 25, 2011=7181, 15 minute drops**

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
21	20	14	7	11	54	137	355	308	267	304	419	437	473	589	728	740	783	572	327	263	210	98	49	-
10	6	5	0	1	14	13	80	109	65	74	83	116	117	125	178	174	193	162	84	75	61	29	14	-
5	9	3	3	4	14	24	87	77	55	80	98	110	119	148	159	179	214	145	86	52	58	19	13	-
2	1	3	1	5	13	45	76	71	71	70	121	112	117	133	182	188	180	158	87	80	56	30	15	-
4	4	3	3	1	13	56	113	52	77	80	118	100	121	183	209	199	196	108	70	57	35	20	7	-

AM Peak 1130 - 1230 (464), AM PHF=0.86

MetroCount Traffic Executive Event Counts

450 -- English (ENU)

Datasets:

Site: [1109.09] LAKE BLVD (COLLEGE BLVD-THUNDER DR) WESTBOUND
 Input A: 4 - West bound. - Lane= 0, Added to totals. (/2.000)
 Input B: 0 - Unused or unknown. - Lane= 0, Excluded from totals.
 Survey Duration: 15:09 Monday, January 24, 2011 => 13:35 Wednesday, January 26, 2011
 File: 1109.09.W26Jan2011.EC0 (Regular)
 Data type: Axle sensors - Separate (Count)

Profile:

Filter time: 0:00 Tuesday, January 25, 2011 => 0:00 Wednesday, January 26, 2011
 In profile: Events = 6632 / 10836 (61.20%)

* Tuesday, January 25, 2011=6632, 15 minute drops

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
8	8	12	18	51	161	374	734	526	398	418	419	400	412	494	473	421	425	350	196	155	88	74	21	
3	2	5	1	7	26	64	160	123	110	100	111	94	105	111	113	97	96	120	54	49	20	21	8	-
3	3	1	6	9	30	77	173	115	105	99	100	96	83	130	119	109	93	79	48	36	24	21	4	-
1	2	4	5	17	51	110	207	134	92	108	102	114	115	131	117	116	131	64	44	30	20	20	7	-
1	1	2	6	18	54	124	195	155	91	112	107	97	109	123	124	99	106	87	50	40	25	12	2	-

AM Peak 0700 - 0800 (734), AM PHF=0.89

MetroCount Traffic Executive Event Counts

713 -- English (ENU)

Datasets:

Site: [1109.01] EL CAMINO REAL (CARLSBAD VILLAGE DR-MARRON RD) NORTHBOUND
Input A: 1 - North bound. - Lane= 0, Added to totals. (/2.000)
Input B: 3 - South bound. - Lane= 0, Excluded from totals.
Survey Duration: 13:50 Monday, January 17, 2011 => 11:38 Wednesday, January 19, 2011
File: 1109.,0119Jan2011.EC0 (Base)
Data type: Axle sensors - Separate (Count)

Profile:

Filter time: 0:00 Tuesday, January 18, 2011 => 0:00 Wednesday, January 19, 2011
In profile: Events = 25766 / 45954 (56.07%)

*** Tuesday, January 18, 2011=13123, 15 minute drops**

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
50	27	30	23	46	144	310	591	705	693	761	874	963	897	1071	1094	1326	1463	844	485	295	215	138	82	
22	10	11	6	13	33	59	117	223	144	184	188	238	212	222	251	313	396	227	129	85	86	45	30	-
15	3	8	7	11	29	67	132	161	175	199	208	233	226	248	267	316	381	244	138	73	40	31	27	-
10	4	3	4	10	34	82	128	146	169	199	201	274	233	301	281	336	358	212	114	65	52	32	12	-
3	10	8	6	12	48	103	215	176	206	179	278	218	227	301	296	361	329	162	105	72	38	31	13	-

AM Peak 1145 - 1245 (1023), AM PHF=0.92

MetroCount Traffic Executive Event Counts

714 -- English (ENU)

Datasets:

Site: [1109.01] EL CAMINO REAL (CARLSBAD VILLAGE DR-MARRON RD) SOUTHBOUND
Input A: 1 - North bound. - Lane= 0, Excluded from totals.
Input B: 3 - South bound. - Lane= 0, Added to totals. (/2.000)
Survey Duration: 13:50 Monday, January 17, 2011 => 11:38 Wednesday, January 19, 2011
File: 1109.0119Jan2011.EC0 (Base)
Data type: Axle sensors - Separate (Count)

Profile:

Filter time: 0:00 Tuesday, January 18, 2011 => 0:00 Wednesday, January 19, 2011
In profile: Events = 25766 / 45954 (56.07%)

* Tuesday, January 18, 2011=12643, 15 minute drops

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
28	23	20	29	144	312	564	1202	910	675	649	679	872	854	845	880	952	977	710	506	349	262	135	69	-
10	4	6	5	18	26	87	201	237	165	154	145	194	235	230	225	241	259	194	135	96	68	50	26	-
6	6	8	5	38	58	111	293	273	188	161	158	217	227	218	219	213	271	180	145	84	73	26	18	-
7	7	3	7	50	106	165	375	237	156	160	175	221	188	165	219	234	214	143	112	90	66	25	15	-
5	6	3	12	39	123	202	334	164	167	175	202	241	205	232	217	264	234	193	115	79	56	34	10	-

AM Peak 0715 - 0815 (1239), AM PHF=0.83

MetroCount Traffic Executive

Event Counts

716 -- English (ENU)

Datasets:

Site: [1109.02] EL CAMINO REAL (HAYMAR DR-SR-78 EB RAMPS) NORTHBOUND
Input A: 1 - North bound. - Lane= 0, Added to totals. (/2.000)
Input B: 0 - Unused or unknown. - Lane= 0, Excluded from totals.
Survey Duration: 14:24 Monday, January 17, 2011 => 11:34 Wednesday, January 19, 2011
File: 1109.02.N19Jan2011.EC0 (Regular)
Data type: Axle sensors - Separate (Count)

Profile:

Filter time: 0:00 Tuesday, January 18, 2011 => 0:00 Wednesday, January 19, 2011
In profile: Events = 20257 / 35843 (56.52%)

* Tuesday, January 18, 2011=20257, 15 minute drops

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
79	46	52	28	67	185	496	746	889	915	1146	1307	1495	1500	1691	1609	1764	2055	1489	1028	679	616	264	115	-
32	13	14	6	14	37	100	154	278	192	276	289	345	383	383	373	420	529	404	273	180	232	101	51	-
20	11	13	11	18	44	118	180	199	252	289	321	366	355	397	385	457	558	393	266	186	162	62	32	-
17	5	14	7	15	42	116	178	204	215	308	313	398	379	469	421	400	487	388	271	162	140	59	16	-
10	17	12	5	20	63	163	234	209	257	274	386	386	383	443	431	488	482	305	219	153	83	43	17	-

AM Peak 1145 - 1245 (1495), AM PHF=0.94

MetroCount Traffic Executive Event Counts

717 -- English (ENU)

Datasets:

Site: [1109.02] EL CAMINO REAL (HAYMAR DR-SR-78 EB RAMPS) SOUTHBOUND
Input A: 3 - South bound. - Lane= 0, Added to totals. (/2.000)
Input B: 0 - Unused or unknown. - Lane= 0, Excluded from totals.
Survey Duration: 14:22 Monday, January 17, 2011 => 11:31 Wednesday, January 19, 2011
File: 1109.02.S19Jan2011.EC0 (Regular)
Data type: Axle sensors - Separate (Count)

Profile:

Filter time: 0:00 Tuesday, January 18, 2011 => 0:00 Wednesday, January 19, 2011
In profile: Events = 20294 / 35309 (57.47%)

* Tuesday, January 18, 2011=20294, 15 minute drops

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
68	42	41	46	188	395	698	1452	1287	1190	1245	1329	1481	1441	1377	1475	1511	1511	1215	873	638	430	244	123	-
26	6	8	10	27	50	107	265	321	320	277	272	320	390	379	365	387	364	329	250	192	134	75	51	-
15	10	14	9	39	81	156	346	359	271	316	338	387	373	385	372	384	393	326	219	178	116	53	24	-
15	11	13	11	53	130	202	426	332	291	318	334	389	325	296	363	398	344	273	192	143	98	54	28	-
12	15	6	16	69	134	234	415	276	309	335	386	385	354	318	375	342	410	287	214	126	83	63	20	-

AM Peak 0730 - 0830 (1520), AM PHF=0.89

MetroCount Traffic Executive Event Counts

715 -- English (ENU)

Datasets:

Site: [1109.03] EL CAMINO REAL (SR-78 WB RAMPS-VISTA WY) NORTHBOUND
Input A: 1 - North bound. - Lane= 0, Added to totals. (/2.000)
Input B: 0 - Unused or unknown. - Lane= 0, Excluded from totals.
Survey Duration: 14:49 Monday, January 17, 2011 => 11:42 Wednesday, January 19, 2011
File: 1108.03.N19Jan2011.EC0 (Regular)
Data type: Axle sensors - Separate (Count)

Profile:

Filter time: 0:00 Tuesday, January 18, 2011 => 0:00 Wednesday, January 19, 2011
In profile: Events = 27122 / 45430 (59.70%)

* Tuesday, January 18, 2011=27122, 15 minute drops

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
116	72	75	46	78	281	627	1061	1384	1416	1502	1717	1978	1788	1994	2209	2357	2664	2005	1382	931	769	418	255	-
37	27	19	20	13	36	96	199	383	342	382	395	485	471	465	539	551	664	563	388	249	243	144	100	-
32	11	22	12	17	65	133	257	314	349	375	427	517	440	443	534	593	665	537	326	243	210	120	76	-
24	13	19	7	19	66	159	266	310	359	363	431	500	421	527	562	576	668	468	351	212	191	98	46	-
24	22	15	8	30	115	240	339	378	366	382	465	477	457	560	575	639	668	439	318	227	126	57	33	-

AM Peak 1145 - 1245 (1966), AM PHF=0.85

MetroCount Traffic Executive Event Counts

718 -- English (ENU)

Datasets:

Site: [1109.03] EL CAMINO REAL (SR-78 WB RAMPS-VISTA WY) SOUTHBOUND
 Input A: 3 - South bound. - Lane= 0, Added to totals. (/2.000)
 Input B: 0 - Unused or unknown. - Lane= 0, Excluded from totals.
 Survey Duration: 14:52 Monday, January 17, 2011 => 11:41 Wednesday, January 19, 2011
 File: 1109.03.S19Jan2011.EC0 (Base)
 Data type: Axle sensors - Separate (Count)

Profile:

Filter time: 0:00 Tuesday, January 18, 2011 => 0:00 Wednesday, January 19, 2011
 In profile: Events = 26737 / 45668 (58.55%)

* Tuesday, January 18, 2011=26737, 15 minute drops

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
89	72	47	55	309	734	1284	2040	1703	1503	1566	1768	1857	1781	1740	2045	1697	1876	1459	1122	815	622	367	193	-
33	18	12	6	40	99	205	437	430	387	397	404	437	468	460	472	494	495	369	298	239	187	126	84	-
22	17	20	5	71	143	294	517	450	367	381	465	476	437	451	505	510	514	382	286	243	147	85	50	-
22	23	10	22	101	233	386	558	413	364	382	425	467	427	411	512	257	446	353	282	182	160	83	33	-
12	14	5	22	97	260	400	530	410	385	407	474	478	450	419	557	436	422	356	256	152	129	73	26	-

AM Peak 0700 - 0800 (2040), AM PHF=0.91

MetroCount Traffic Executive Event Counts

719 -- English (ENU)

Datasets:

Site: [1109.04] EL CAMINO REAL (VISTA WAY-VIA LAS ROSAS) NORTHBOUND
Input A: 1 - North bound. - Lane= 0, Added to totals. (/2.000)
Input B: 3 - South bound. - Lane= 0, Excluded from totals.
Survey Duration: 15:29 Monday, January 17, 2011 => 11:36 Wednesday, January 19, 2011
File: 1109.0419Jan2011.EC0 (Regular)
Data type: Axle sensors - Separate (Count)

Profile:

Filter time: 0:00 Tuesday, January 18, 2011 => 0:00 Wednesday, January 19, 2011
In profile: Events = 36675 / 60271 (60.85%)

*** Tuesday, January 18, 2011=17938, 15 minute drops**

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
100	52	55	41	57	199	492	763	856	818	859	1014	1128	1161	1304	1471	1682	1821	1270	933	712	628	335	193
35	17	20	11	11	27	77	173	219	201	210	238	264	280	291	331	400	462	350	263	199	183	131	80
34	6	11	9	12	42	97	190	201	205	219	234	277	272	289	368	393	467	329	235	181	180	94	55
18	11	14	10	15	53	127	184	201	207	188	239	276	308	347	360	424	452	305	206	173	145	68	35
13	18	10	12	19	77	192	216	237	205	243	304	312	301	378	412	465	440	287	230	159	120	42	23

AM Peak 1145 - 1245 (1120), AM PHF=0.92

MetroCount Traffic Executive Event Counts

720 -- English (ENU)

Datasets:

Site: [1109.04] EL CAMINO REAL (VISTA WAY-VIA LAS ROSAS) SOUTHBOUND
 Input A: 1 - North bound. - Lane= 0, Excluded from totals.
 Input B: 3 - South bound. - Lane= 0, Added to totals. (/2.000)
 Survey Duration: 15:29 Monday, January 17, 2011 => 11:36 Wednesday, January 19, 2011
 File: 1109.0419Jan2011.EC0 (Regular)
 Data type: Axle sensors - Separate (Count)

Profile:

Filter time: 0:00 Tuesday, January 18, 2011 => 0:00 Wednesday, January 19, 2011
 In profile: Events = 36675 / 60271 (60.85%)

* Tuesday, January 18, 2011=18737, 15 minute drops

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
60	50	37	51	257	598	1020	1698	1311	1178	1112	1258	1254	1140	1116	1264	1236	1361	1022	642	457	306	188	125	-
20	15	12	7	30	78	168	323	331	308	280	296	314	274	300	288	297	375	317	187	144	91	60	51	-
23	13	10	6	65	110	211	450	337	316	285	326	313	290	278	287	352	416	261	164	126	86	39	36	-
9	13	7	18	86	212	317	453	345	265	240	287	321	250	269	314	281	294	258	164	106	70	44	19	-
8	9	8	21	77	200	325	473	298	289	308	350	307	327	271	376	307	277	186	128	82	60	45	20	-

AM Peak 0715 - 0815 (1708), AM PHF=0.90

MetroCount Traffic Executive Event Counts

731 -- English (ENU)

Datasets:

Site: [1109.06] COLLEGE BLVD (PLAZA DR-SR-78 EB RAMPS) NORTHBOUND
 Input A: 1 - North bound. - Lane= 0, Added to totals. (/2.000)
 Input B: 0 - Unused or unknown. - Lane= 0, Excluded from totals.
 Survey Duration: 12:03 Wednesday, January 19, 2011 => 11:52 Friday, January 21, 2011
 File: 1109.06.N21Jan2011.EC0 (Base)
 Data type: Axle sensors - Separate (Count)

Profile:

Filter time: 0:00 Thursday, January 20, 2011 => 0:00 Friday, January 21, 2011
 In profile: Events = 18134 / 34010 (53.32%)

* Thursday, January 20, 2011=18134, 15 minute drops

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
63	41	39	48	88	279	595	884	1017	940	1001	1090	1307	1379	1386	1459	1411	1625	1190	796	617	457	281	145	-
30	15	8	15	14	46	125	149	284	262	267	236	294	354	360	362	343	381	385	246	172	140	67	46	-
15	5	14	15	19	57	149	185	239	221	252	281	310	354	339	379	346	420	309	225	145	129	83	28	-
5	9	9	7	29	75	156	221	187	234	245	288	358	307	334	332	357	408	250	185	148	94	72	47	-
13	13	8	12	26	102	166	330	309	224	237	287	346	365	354	386	366	417	246	140	153	95	60	24	-

AM Peak 1145 - 1245 (1248), AM PHF=0.87

MetroCount Traffic Executive Event Counts

732 -- English (ENU)

Datasets:

Site: [1109.06] COLLEGE BLVD (PLAZA DR-SR-78 EB RAMPS) SOUTHBOUND
Input A: 3 - South bound. - Lane= 0, Added to totals. (/2.000)
Input B: 0 - Unused or unknown. - Lane= 0, Excluded from totals.
Survey Duration: 12:06 Wednesday, January 19, 2011 => 12:01 Friday, January 21, 2011
File: 1109.06.S21Jan2011.EC0 (Regular)
Data type: Axle sensors - Separate (Count)

Profile:

Filter time: 0:00 Thursday, January 20, 2011 => 0:00 Friday, January 21, 2011
In profile: Events = 26750 / 49562 (53.97%)

*** Thursday, January 20, 2011=26750, 15 minute drops**

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
102	69	61	93	247	573	1167	1930	1672	1478	1488	1729	1887	1807	1877	1893	1938	1925	1557	1158	860	638	380	227	-
27	23	16	20	40	62	179	401	392	349	346	398	481	450	486	503	460	481	438	332	242	168	128	63	-
25	18	18	16	43	92	241	485	455	361	380	431	441	443	460	442	502	501	398	313	233	162	101	66	-
27	14	10	21	69	200	327	493	440	364	383	408	459	438	468	497	483	499	369	274	197	163	80	59	-
23	15	17	37	96	220	420	552	386	405	379	493	507	477	464	452	493	444	352	240	189	146	71	40	-

AM Peak 0700 - 0800 (1930), AM PHF=0.87

MetroCount Traffic Executive Event Counts

733 -- English (ENU)

Datasets:

Site: [1109.07] COLLEGE BLVD (VISTA WAY-BARNARD DR) NORTHBOUND
 Input A: 1 - North bound. - Lane= 0, Added to totals. (/2.000)
 Input B: 0 - Unused or unknown. - Lane= 0, Excluded from totals.
 Survey Duration: 13:53 Wednesday, January 19, 2011 => 11:58 Friday, January 21, 2011
 File: 1109.07.N21Jan2011.EC0 (Base)
 Data type: Axle sensors - Separate (Count)

Profile:

Filter time: 0:00 Thursday, January 20, 2011 => 0:00 Friday, January 21, 2011
 In profile: Events = 18899 / 34676 (54.50%)

* Thursday, January 20, 2011=18899, 15 minute drops

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
126	70	49	50	72	190	491	826	931	873	972	1074	1153	1242	1468	1571	1604	1648	1400	989	773	636	447	250	-
47	19	12	16	18	37	67	163	238	207	227	256	227	293	344	361	404	398	417	270	202	166	125	78	-
30	9	17	11	17	45	114	172	232	205	245	233	308	305	349	389	360	421	384	254	196	169	119	60	-
27	22	7	12	22	52	136	223	213	222	215	298	319	295	384	401	401	415	310	255	198	159	117	62	-
23	20	12	11	15	56	175	269	249	239	286	288	300	350	392	421	440	415	290	210	179	143	87	50	-

AM Peak 1145 - 1245 (1141), AM PHF=0.90

MetroCount Traffic Executive Event Counts

734 -- English (ENU)

Datasets:

Site: [1109.07] COLLEGE BLVD (VISTA WAY-BARNARD DR) SOUTHBOUND
Input A: 3 - South bound. - Lane= 0, Added to totals. (/2.000)
Input B: 0 - Unused or unknown. - Lane= 0, Excluded from totals.
Survey Duration: 13:52 Wednesday, January 19, 2011 => 11:50 Friday, January 21, 2011
File: 1109.07.S21Jan2011.EC0 (Regular)
Data type: Axle sensors - Separate (Count)

Profile:

Filter time: 0:00 Thursday, January 20, 2011 => 0:00 Friday, January 21, 2011
In profile: Events = 18673 / 34949 (53.43%)

* Thursday, January 20, 2011=18673, 15 minute drops

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
65	57	45	71	240	615	1189	1684	1286	1046	1123	1145	1151	1194	1160	1235	1265	1308	971	656	465	336	235	134
17	13	7	12	37	83	204	374	322	258	283	310	295	288	266	367	291	323	234	198	134	93	88	46
21	18	14	9	50	108	277	447	320	267	266	273	274	280	303	285	336	366	242	155	131	81	58	34
15	13	6	21	64	222	350	403	326	249	301	260	303	327	288	277	327	336	253	165	97	87	43	29
12	13	18	30	89	203	359	461	318	273	274	303	280	300	304	307	312	285	243	138	103	76	48	26

AM Peak 0700 - 0800 (1684), AM PHF=0.91

MetroCount Traffic Executive Event Counts

452 -- English (ENU)

Datasets:

Site: [1109.10] PLAZA DR (COLLEGE BLVD-SR-78 EB RAMPS) EASTBOUND
 Input A: 4 - West bound. - Lane= 0, Excluded from totals.
 Input B: 2 - East bound. - Lane= 0, Added to totals. (/2.000)
 Survey Duration: 16:24 Monday, January 24, 2011 => 13:33 Wednesday, January 26, 2011
 File: 1109.1026Jan2011.EC0 (Regular)
 Data type: Axle sensors - Separate (Count)

Profile:

Filter time: 0:00 Tuesday, January 25, 2011 => 0:00 Wednesday, January 26, 2011
 In profile: Events = 22063 / 32514 (67.86%)

* Tuesday, January 25, 2011=14970, 15 minute drops

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
52	34	28	18	90	229	480	936	941	864	956	1050	1076	1086	1068	1190	1166	1076	846	611	481	420	171	107
14	17	7	2	11	41	64	188	271	198	218	239	268	254	269	317	296	278	244	153	123	120	61	36
15	8	6	5	14	51	102	237	236	214	241	276	249	282	248	302	280	268	218	161	129	114	41	30
15	7	5	5	32	68	145	259	198	243	228	258	273	281	272	313	321	279	227	136	118	93	32	23
9	2	10	6	33	69	169	252	237	209	271	278	287	269	279	259	269	251	158	162	111	93	38	18

AM Peak 1115 - 1215 (1079), AM PHF=0.97

MetroCount Traffic Executive Event Counts

451 -- English (ENU)

Datasets:

Site: [1109.10] PLAZA DR (COLLEGE BLVD-SR-78 EB RAMPS) WESTBOUND
 Input A: 4 - West bound. - Lane= 0, Added to totals. (/2.000)
 Input B: 2 - East bound. - Lane= 0, Excluded from totals.
 Survey Duration: 16:24 Monday, January 24, 2011 => 13:33 Wednesday, January 26, 2011
 File: 1109.1026Jan2011.EC0 (Regular)
 Data type: Axle sensors - Separate (Count)

Profile:

Filter time: 0:00 Tuesday, January 25, 2011 => 0:00 Wednesday, January 26, 2011
 In profile: Events = 22063 / 32514 (67.86%)

*** Tuesday, January 25, 2011=7093, 15 minute drops**

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
24	22	7	5	19	67	177	266	337	353	446	535	640	599	574	587	567	579	459	301	245	165	87	38	-
8	6	0	0	1	10	30	60	75	84	89	127	142	151	145	158	155	142	121	90	87	52	31	13	-
9	7	4	1	3	12	49	65	82	89	102	126	158	137	145	143	119	157	127	73	63	45	18	7	-
5	2	1	2	9	19	44	63	91	89	138	138	179	177	142	144	140	152	115	76	55	35	22	11	-
2	7	2	3	6	26	55	79	90	91	118	145	162	134	142	142	153	128	97	63	41	33	16	7	-

AM Peak 1145 - 1245 (623), AM PHF=0.87

MetroCount Traffic Executive Event Counts

453 -- English (ENU)

Datasets:

Site: [1109.11] PLAZA DR (SR-78 EB RAMPS-THUNDER DR) EASTBOUND
Input A: 2 - East bound. - Lane= 0, Added to totals. (/2.000)
Input B: 0 - Unused or unknown. - Lane= 0, Excluded from totals.
Survey Duration: 15:52 Monday, January 24, 2011 => 13:41 Wednesday, January 26, 2011
File: 1109.11.E26Jan2011.EC0 (Base)
Data type: Axle sensors - Separate (Count)

Profile:

Filter time: 0:00 Tuesday, January 25, 2011 => 0:00 Wednesday, January 26, 2011
In profile: Events = 5745 / 8546 (67.22%)

* Tuesday, January 25, 2011=5745, 15 minute drops

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
25	15	14	7	8	29	81	140	218	255	338	439	515	493	468	481	542	504	435	282	188	148	80	44	-
5	6	3	0	0	4	8	22	58	53	82	119	113	116	120	131	124	135	129	78	45	45	26	14	-
5	4	4	1	1	9	15	34	60	60	77	117	129	131	98	139	140	130	118	81	58	39	21	14	-
10	1	4	4	3	9	24	40	46	58	85	100	120	121	122	108	130	116	90	54	49	39	21	10	-
5	4	3	2	4	7	34	45	55	85	95	105	154	126	129	104	149	123	99	69	36	25	12	6	-

AM Peak 1145 - 1245 (466), AM PHF=0.91

MetroCount Traffic Executive Event Counts

454 -- English (ENU)

Datasets:

Site: [1109.11] PLAZA DR (SR-78 EB RAMPS-THUNDER DR) WESTBOUND
 Input A: 4 - West bound. - Lane= 0, Added to totals. (/2.000)
 Input B: 0 - Unused or unknown. - Lane= 0, Excluded from totals.
 Survey Duration: 15:48 Monday, January 24, 2011 => 13:44 Wednesday, January 26, 2011
 File: 1109.11.W26Jan2011.EC0 (Regular)
 Data type: Axle sensors - Separate (Count)

Profile:

Filter time: 0:00 Tuesday, January 25, 2011 => 0:00 Wednesday, January 26, 2011
 In profile: Events = 6220 / 9278 (67.03%)

* Tuesday, January 25, 2011=6220, 15 minute drops

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
17	13	8	5	26	81	187	311	333	313	435	467	520	531	479	462	503	512	392	243	181	114	58	35
5	1	2	1	2	13	39	64	80	83	99	111	124	127	108	115	150	122	110	64	56	33	17	8
4	5	3	0	3	9	41	67	79	67	89	105	136	118	114	114	96	146	95	73	51	36	16	10
5	2	2	0	16	28	49	90	86	78	117	116	128	157	124	112	127	124	99	52	45	29	13	12
3	5	1	4	5	31	59	90	88	85	131	136	132	130	133	122	130	120	88	54	29	17	12	5

AM Peak 1145 - 1245 (524), AM PHF=0.96

MetroCount Traffic Executive Event Counts

721 -- English (ENU)

Datasets:

Site: [1109.12] VISTA WAY (JEFFERSON ST-EL CAMINO REAL) EASTBOUND
 Input A: 2 - East bound. - Lane= 0, Added to totals. (/2.000)
 Input B: 0 - Unused or unknown. - Lane= 0, Excluded from totals.
 Survey Duration: 17:01 Monday, January 17, 2011 => 11:33 Wednesday, January 19, 2011
 File: 1109.12.E19Jan2011.EC0 (Base)
 Data type: Vehicle sensors - Separate (Count)

Profile:

Filter time: 0:00 Tuesday, January 18, 2011 => 0:00 Wednesday, January 19, 2011
 In profile: Events = 8204 / 12125 (67.66%)

* Tuesday, January 18, 2011=8204, 15 minute drops

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
20	10	4	6	14	37	61	112	219	334	481	572	693	708	721	703	691	791	628	588	403	243	121	48	-
11	2	0	3	3	8	11	24	40	75	105	127	143	199	160	183	181	186	160	172	118	76	47	22	-
4	1	0	0	3	8	9	20	46	72	116	140	162	195	190	159	161	208	176	144	117	74	36	11	-
4	4	2	1	4	14	14	31	52	82	122	167	185	159	186	176	195	202	140	145	78	56	22	6	-
1	3	2	2	4	7	27	38	82	106	139	139	203	156	185	185	155	195	153	128	91	37	16	9	-

AM Peak 1145 - 1245 (629), AM PHF=0.85

MetroCount Traffic Executive Event Counts

722 -- English (ENU)

Datasets:

Site: [1109.12] VISTA WAY (JEFFERSON ST-EL CAMINO REAL) WESTBOUND
 Input A: 4 - West bound. - Lane= 0, Added to totals. (/2.000)
 Input B: 0 - Unused or unknown. - Lane= 0, Excluded from totals.
 Survey Duration: 17:00 Monday, January 17, 2011 => 11:41 Wednesday, January 19, 2011
 File: 1109.12.W19Jan2011.EC0 (Base)
 Data type: Axle sensors - Separate (Count)

Profile:

Filter time: 0:00 Tuesday, January 18, 2011 => 0:00 Wednesday, January 19, 2011
 In profile: Events = 7375 / 10880 (67.78%)

*** Tuesday, January 18, 2011=7375, 15 minute drops**

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
10	6	6	6	17	57	92	189	255	402	543	631	706	606	591	612	597	602	574	395	262	135	55	28	
2	5	0	1	2	7	16	46	58	82	146	110	177	153	140	152	139	130	144	110	72	38	17	9	-
1	0	4	3	5	12	13	42	65	93	132	180	176	151	146	149	155	155	166	102	75	38	12	11	-
4	1	0	0	3	13	29	48	61	125	115	176	185	128	141	158	150	164	138	102	53	33	12	6	-
3	0	2	2	7	25	35	54	72	103	150	166	169	175	165	154	153	153	127	81	64	26	14	2	-

AM Peak 1145 - 1245 (703), AM PHF=0.95

MetroCount Traffic Executive Event Counts

723 -- English (ENU)

Datasets:

Site: [1109.13] VISTA WAY (EL CAMINO REAL-RANCHO DEL ORO DR) EASTBOUND
Input A: 2 - East bound. - Lane= 0, Added to totals. (/2.000)
Input B: 0 - Unused or unknown. - Lane= 0, Excluded from totals.
Survey Duration: 15:52 Monday, January 17, 2011 => 11:31 Wednesday, January 19, 2011
File: 1109.13.E19Jan2011.EC0 (Base)
Data type: Axle sensors - Separate (Count)

Profile:

Filter time: 0:00 Tuesday, January 18, 2011 => 0:00 Wednesday, January 19, 2011
In profile: Events = 7666 / 11883 (64.51%)

* Tuesday, January 18, 2011=7666, 15 minute drops

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
27	17	13	7	8	42	115	210	320	375	446	451	555	563	610	680	690	871	601	375	279	227	121	68	-
8	5	2	5	3	4	24	46	85	76	104	127	128	141	137	193	155	222	200	99	85	76	25	25	-
6	4	5	2	0	7	19	48	74	97	110	106	122	163	131	137	150	256	159	103	71	53	39	21	-
8	5	3	0	2	13	35	42	71	106	113	113	158	117	194	182	214	202	129	86	52	58	33	13	-
5	3	3	0	3	18	37	74	91	96	120	106	148	143	148	169	173	191	113	87	71	40	24	9	-

AM Peak 1145 - 1245 (513), AM PHF=0.81

MetroCount Traffic Executive Event Counts

724 -- English (ENU)

Datasets:

Site: [1109.13] VISTA WAY (EL CAMINO REAL-RANCHO DEL ORO DR) WESTBOUND
Input A: 4 - West bound. - Lane= 0, Added to totals. (/2.000)
Input B: 0 - Unused or unknown. - Lane= 0, Excluded from totals.
Survey Duration: 15:50 Monday, January 17, 2011 => 11:30 Wednesday, January 19, 2011
File: 1109.13.W19Jan2011.EC0 (Regular)
Data type: Axle sensors - Separate (Count)

Profile:

Filter time: 0:00 Tuesday, January 18, 2011 => 0:00 Wednesday, January 19, 2011
In profile: Events = 7664 / 12060 (63.55%)

* Tuesday, January 18, 2011=7664, 15 minute drops

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
17	10	8	17	50	148	298	501	470	531	570	592	624	561	570	623	534	532	424	236	158	102	64	29	
6	5	1	1	9	27	45	116	107	119	132	116	160	116	137	175	129	150	133	50	39	32	20	12	-
3	2	5	3	9	30	60	121	122	117	132	161	178	146	138	144	141	136	112	62	48	18	14	5	-
7	1	1	7	12	30	100	125	122	158	140	149	136	143	145	158	148	132	78	67	41	23	17	7	-
1	2	1	6	20	61	93	139	120	139	166	167	151	156	151	147	116	115	102	57	30	29	13	5	-

AM Peak 1130 - 1230 (653), AM PHF=0.92

MetroCount Traffic Executive Event Counts

726 -- English (ENU)

Datasets:

Site: [1109.14] VISTA WAY (RANCHO DEL ORO DR-COLLEGE BLVD) EASTBOUND
 Input A: 4 - West bound. - Lane= 0, Excluded from totals.
 Input B: 2 - East bound. - Lane= 0, Added to totals. (/2.000)
 Survey Duration: 16:06 Monday, January 17, 2011 => 11:33 Wednesday, January 19, 2011
 File: 1109.1419Jan2011.EC0 (Regular)
 Data type: Axle sensors - Separate (Count)

Profile:

Filter time: 0:00 Tuesday, January 18, 2011 => 0:00 Wednesday, January 19, 2011
 In profile: Events = 13600 / 20599 (66.02%)

* Tuesday, January 18, 2011=6640, 15 minute drops

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
16	7	12	20	21	68	204	434	413	354	456	410	466	523	529	526	559	652	378	201	162	122	73	40	
7	0	5	9	3	7	25	84	112	73	90	117	120	142	114	162	128	177	119	59	52	41	17	13	-
2	3	3	3	3	19	46	123	98	84	126	110	103	114	124	114	132	165	120	58	37	29	21	9	-
4	4	2	1	8	25	60	107	93	108	124	93	119	126	157	132	156	169	74	42	31	30	21	13	-
3	0	2	7	7	17	73	121	110	90	118	90	124	141	135	119	144	142	65	42	42	22	14	5	-

AM Peak 1015 - 1115 (483), AM PHF=0.96

MetroCount Traffic Executive Event Counts

725 -- English (ENU)

Datasets:

Site: [1109.14] VISTA WAY (RANCHO DEL ORO DR-COLLEGE BLVD) WESTBOUND
Input A: 4 - West bound. - Lane= 0, Added to totals. (/2.000)
Input B: 2 - East bound. - Lane= 0, Excluded from totals.
Survey Duration: 16:06 Monday, January 17, 2011 => 11:33 Wednesday, January 19, 2011
File: 1109.1419Jan2011.EC0 (Regular)
Data type: Axle sensors - Separate (Count)

Profile:

Filter time: 0:00 Tuesday, January 18, 2011 => 0:00 Wednesday, January 19, 2011
In profile: Events = 13600 / 20599 (66.02%)

*** Tuesday, January 18, 2011=6961, 15 minute drops**

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
28	8	15	12	29	83	186	331	418	459	471	530	536	547	587	562	570	559	376	244	161	136	79	39	-
10	4	4	3	3	10	28	67	89	100	95	105	133	135	128	141	143	147	122	59	45	35	18	8	-
6	1	6	3	6	17	30	60	118	114	120	157	136	132	147	135	134	138	97	65	42	38	25	8	-
6	2	1	3	9	23	56	84	95	126	130	130	133	135	158	140	162	159	64	69	38	29	20	14	-
6	1	4	3	11	33	72	121	117	120	127	138	135	145	155	146	133	115	93	52	36	34	16	9	-

AM Peak 1115 - 1215 (558), AM PHF=0.89

MetroCount Traffic Executive Event Counts

727 -- English (ENU)

Datasets:

Site: [1109.15] VISTA WAY (COLLEGE BLVD-TRI CITY HOSPITAL DR) EASTBOUND
Input A: 2 - East bound. - Lane= 0, Added to totals. (/2.000)
Input B: 0 - Unused or unknown. - Lane= 0, Excluded from totals.
Survey Duration: 16:31 Monday, January 17, 2011 => 11:40 Wednesday, January 19, 2011
File: 1109.15.E19Jan2011.EC0 (Regular)
Data type: Axle sensors - Separate (Count)

Profile:

Filter time: 0:00 Tuesday, January 18, 2011 => 0:00 Wednesday, January 19, 2011
In profile: Events = 8206 / 12153 (67.53%)

*** Tuesday, January 18, 2011=8206, 15 minute drops**

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
38	18	24	23	29	93	284	549	611	540	562	506	591	657	684	637	590	580	438	277	184	135	93	70	-
12	5	6	11	3	7	27	76	196	129	130	117	130	158	168	163	153	155	115	72	45	36	18	18	-
8	3	7	5	6	19	36	127	140	121	130	152	156	154	164	164	125	142	114	71	61	34	32	20	-
6	4	5	1	10	27	75	136	117	122	132	129	140	162	171	159	150	149	87	69	42	32	21	22	-
12	6	6	7	10	40	146	210	158	168	171	109	166	183	181	152	163	135	123	65	37	34	22	10	-

AM Peak 0730 - 0830 (882), AM PHF=0.81

MetroCount Traffic Executive Event Counts

728 -- English (ENU)

Datasets:

Site: [1109.15] VISTA WAY (COLLEGE BLVD-TRI CITY HOSPITAL DR) WESTBOUND
Input A: 4 - West bound. - Lane= 0, Added to totals. (/2.000)
Input B: 0 - Unused or unknown. - Lane= 0, Excluded from totals.
Survey Duration: 16:29 Monday, January 17, 2011 => 11:35 Wednesday, January 19, 2011
File: 1109.15.W19Jan2011.EC0 (Regular)
Data type: Axle sensors - Separate (Count)

Profile:

Filter time: 0:00 Tuesday, January 18, 2011 => 0:00 Wednesday, January 19, 2011
In profile: Events = 7891 / 11667 (67.64%)

* Tuesday, January 18, 2011=7891, 15 minute drops

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
41	19	18	24	41	112	221	436	428	473	528	616	642	502	714	682	673	625	374	270	184	125	75	73	-
14	8	2	7	4	9	38	65	122	103	145	159	193	130	164	174	173	215	115	61	62	26	23	16	-
9	3	3	5	11	24	50	79	111	129	137	139	152	108	166	175	156	158	99	59	48	43	14	15	-
10	5	3	4	16	32	59	133	105	129	141	155	158	133	200	174	177	139	88	86	43	29	27	23	-
8	3	10	8	10	48	75	160	91	112	106	164	139	132	186	159	167	114	72	64	33	27	11	19	-

AM Peak 1145 - 1245 (666), AM PHF=0.86

True Count
4401 Twain Ave, Suite 27
San Diego, CA 92120

1-ADP
EX

File Name : 1109.01.EL CAMINO REAL.VISTA WY
Site Code : 00000000
Start Date : 1/18/2011
Page No : 1

Groups Printed- Vehicles

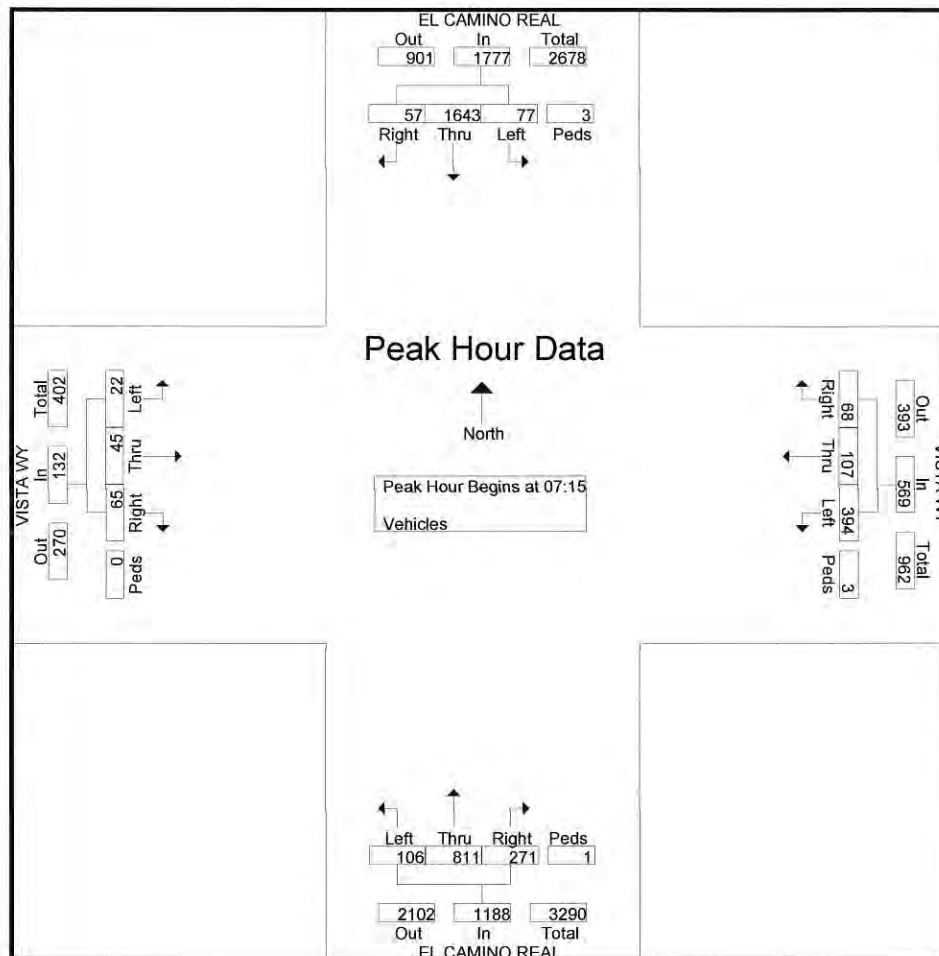
Start Time	EL CAMINO REAL Southbound				VISTA WY Westbound				EL CAMINO REAL Northbound				VISTA WY Eastbound				Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
07:00	11	305	22	1	122	20	15	0	11	147	19	0	4	9	12	1	699
07:15	14	433	11	1	85	28	23	2	17	172	50	0	3	8	7	0	854
07:30	18	443	12	1	104	21	14	0	17	190	50	0	2	8	17	0	897
07:45	26	437	17	0	108	33	16	1	27	223	83	0	7	14	17	0	1009
Total	69	1618	62	3	419	102	68	3	72	732	202	0	16	39	53	1	3459
08:00	19	330	17	1	97	25	15	0	45	226	88	1	10	15	24	0	913
08:15	16	335	17	0	86	35	18	1	29	196	63	2	10	12	21	3	844
08:30	21	306	20	4	96	31	24	2	28	199	45	1	8	14	31	1	831
08:45	24	287	28	2	83	36	19	0	47	231	72	0	10	23	33	2	897
Total	80	1258	82	7	362	127	76	3	149	852	268	4	38	64	109	6	3485
*** BREAK ***																	
16:00	41	295	43	0	72	44	25	1	106	337	96	0	49	56	94	0	1259
16:15	31	284	53	0	86	52	29	0	103	350	105	1	43	43	108	0	1288
16:30	40	261	32	2	103	53	34	1	90	362	116	0	53	75	91	0	1313
16:45	29	292	38	0	78	45	31	2	117	424	110	2	46	53	75	1	1343
Total	141	1132	166	2	339	194	119	4	416	1473	427	3	191	227	368	1	5203
17:00	42	307	37	0	92	53	40	1	97	407	142	1	37	67	93	1	1417
17:15	51	347	46	0	84	59	30	0	95	438	148	0	42	101	94	0	1535
17:30	42	263	41	0	90	48	30	0	117	419	122	0	52	87	92	0	1403
17:45	33	239	45	0	69	39	26	0	113	393	143	1	44	73	102	0	1320
Total	168	1156	169	0	335	199	126	1	422	1657	555	2	175	328	381	1	5675
Grand Total	458	5164	479	12	1455	622	389	11	1059	4714	1452	9	420	658	911	9	17822
Apprch %	7.5	84.5	7.8	0.2	58.7	25.1	15.7	0.4	14.6	65.2	20.1	0.1	21	32.9	45.6	0.5	
Total %	2.6	29	2.7	0.1	8.2	3.5	2.2	0.1	5.9	26.5	8.1	0.1	2.4	3.7	5.1	0.1	

True Count
4401 Twain Ave, Suite 27
San Diego, CA 92120

I-A
EX

File Name : 1109.01.EL CAMINO REAL.VISTA WY
Site Code : 00000000
Start Date : 1/18/2011
Page No : 2

	EL CAMINO REAL Southbound					VISTA WY Westbound					EL CAMINO REAL Northbound					VISTA WY Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 11:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15																					
07:15	14	433	11	1	459	85	28	23	2	138	17	172	50	0	239	3	8	7	0	18	854
07:30	18	443	12	1	474	104	21	14	0	139	17	190	50	0	257	2	8	17	0	27	897
07:45	26	437	17	0	480	108	33	16	1	158	27	223	83	0	333	7	14	17	0	38	1009
08:00	19	330	17	1	367	97	25	15	0	137	45	226	88	1	360	10	15	24	0	49	913
Total Volume	77	1643	57	3	1780	394	107	68	3	572	106	811	271	1	1189	22	45	65	0	132	3673
% App. Total	4.3	92.3	3.2	0.2		68.9	18.7	11.9	0.5		8.9	68.2	22.8	0.1		16.7	34.1	49.2	0		
PHF	.740	.927	.838	.750	.927	.912	.811	.739	.375	.905	.589	.897	.770	.250	.826	.550	.750	.677	.000	.673	.910



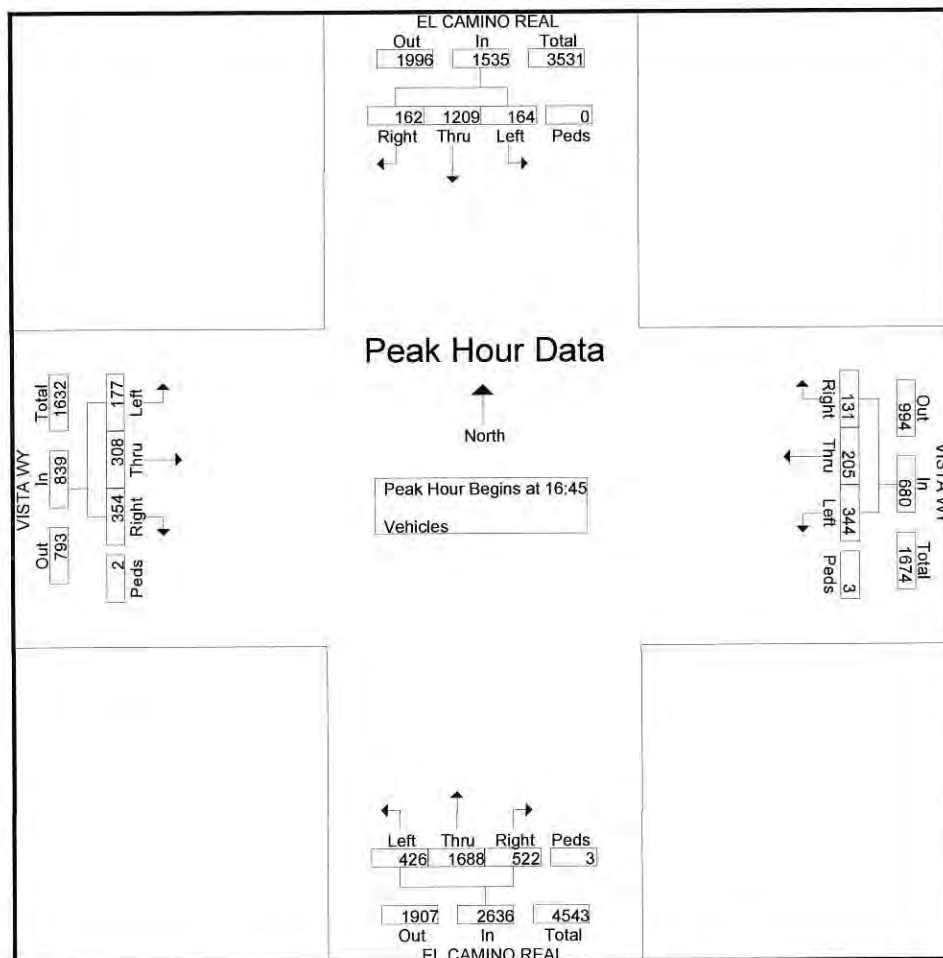
True Count

4401 Twain Ave, Suite 27
San Diego, CA 92120

1-P
EX

File Name : 1109.01.EL CAMINO REAL.VISTA WY
Site Code : 00000000
Start Date : 1/18/2011
Page No : 3

	EL CAMINO REAL Southbound					VISTA WY Westbound					EL CAMINO REAL Northbound					VISTA WY Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:45																					
16:45	29	292	38	0	359	78	45	31	2	156	117	424	110	2	653	46	53	75	1	175	1343
17:00	42	307	37	0	386	92	53	40	1	186	97	407	142	1	647	37	67	93	1	198	1417
17:15	51	347	46	0	444	84	59	30	0	173	95	438	148	0	681	42	101	94	0	237	1535
17:30	42	263	41	0	346	90	48	30	0	168	117	419	122	0	658	52	87	92	0	231	1403
Total Volume	164	1209	162	0	1535	344	205	131	3	683	426	1688	522	3	2639	177	308	354	2	841	5698
% App. Total	10.7	78.8	10.6	0		50.4	30	19.2	0.4		16.1	64	19.8	0.1		21	36.6	42.1	0.2		
PHF	.804	.871	.880	.000	.864	.935	.869	.819	.375	.918	.910	.963	.882	.375	.969	.851	.762	.941	.500	.887	.928



True Count
4401 Twain Ave, Suite 27
San Diego, CA 92120

2-APP
EX

File Name : 1109.02.EL CAMINO REAL.SR-78 WB RAMPS
Site Code : 00000000
Start Date : 1/18/2011
Page No : 1

Groups Printed- Vehicles

Start Time	EL CAMINO REAL Southbound				SR-78 WB RAMPS Westbound				EL CAMINO REAL Northbound				SR-78 WB RAMPS Eastbound				Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
07:00	0	302	130	0	55	0	67	0	34	112	0	0	0	0	0	1	701
07:15	0	414	103	0	62	0	87	0	30	140	0	0	0	0	0	0	836
07:30	0	439	110	0	93	0	85	0	29	160	0	0	0	0	0	0	916
07:45	0	459	119	0	101	0	121	0	28	207	0	0	0	0	0	0	1035
Total	0	1614	462	0	311	0	360	0	121	619	0	0	0	0	0	1	3488
08:00	0	346	106	0	81	0	103	0	38	241	0	0	0	0	0	0	915
08:15	0	348	75	0	91	0	104	0	29	180	0	0	0	0	0	2	829
08:30	0	313	106	0	105	0	111	1	31	159	0	0	0	0	0	1	827
08:45	0	297	117	0	96	0	126	0	27	215	0	0	0	0	0	1	879
Total	0	1304	404	0	373	0	444	1	125	795	0	0	0	0	0	4	3450
*** BREAK ***																	
16:00	0	364	100	1	131	0	166	1	42	354	0	0	0	0	0	1	1160
16:15	0	350	118	0	115	0	161	0	55	374	0	0	0	0	0	0	1173
16:30	0	324	133	0	123	0	165	1	48	394	0	0	0	0	0	1	1189
16:45	0	323	118	0	113	0	180	0	51	465	0	0	0	0	0	2	1252
Total	0	1361	469	1	482	0	672	2	196	1587	0	0	0	0	0	4	4774
17:00	0	371	122	0	108	0	174	1	44	474	0	0	0	0	0	0	1294
17:15	0	382	125	0	103	0	177	0	26	480	0	0	0	0	0	2	1295
17:30	0	326	110	0	106	0	177	0	41	461	0	0	0	0	0	0	1221
17:45	0	315	102	0	122	0	162	1	54	477	0	0	0	0	0	2	1235
Total	0	1394	459	0	439	0	690	2	165	1892	0	0	0	0	0	4	5045
Grand Total	0	5673	1794	1	1605	0	2166	5	607	4893	0	0	0	0	0	13	16757
Apprch %	0	76	24	0	42.5	0	57.4	0.1	11	89	0	0	0	0	0	100	
Total %	0	33.9	10.7	0	9.6	0	12.9	0	3.6	29.2	0	0	0	0	0	0.1	

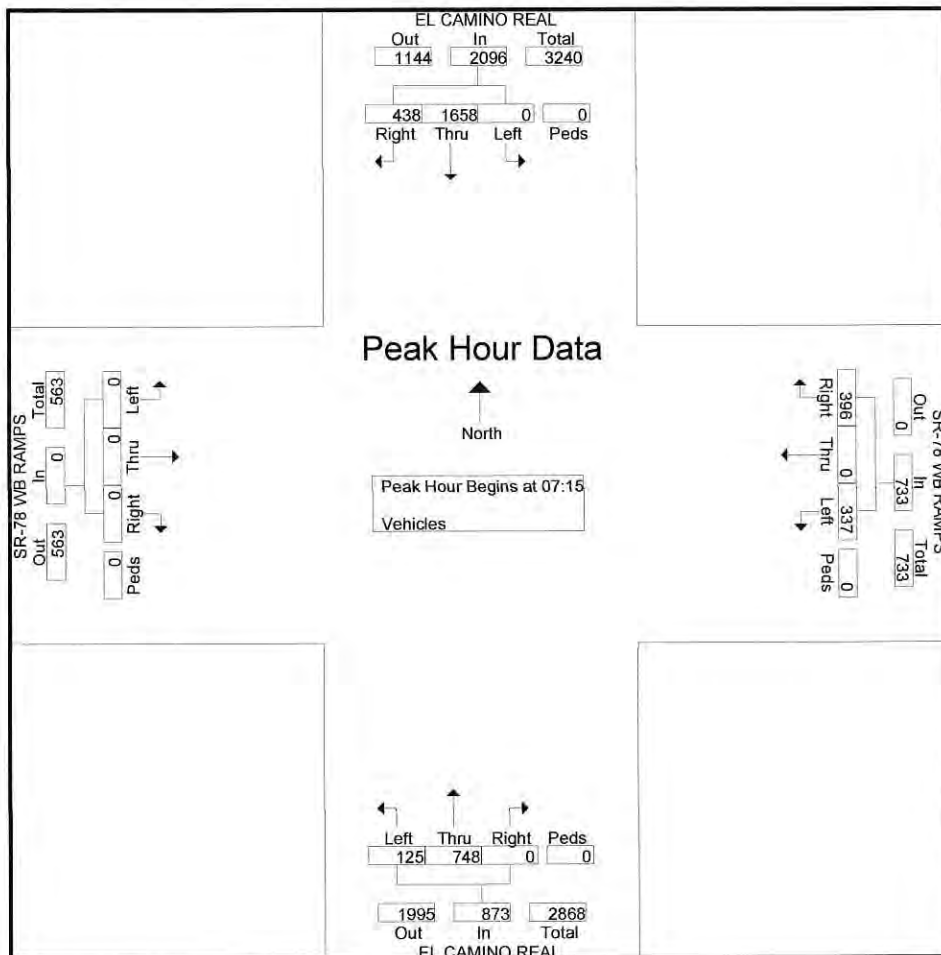
True Count

4401 Twain Ave, Suite 27
San Diego, CA 92120

2-A
EX

File Name : 1109.02.EL CAMINO REAL.SR-78 WB RAMPS
Site Code : 00000000
Start Date : 1/18/2011
Page No : 2

	EL CAMINO REAL Southbound					SR-78 WB RAMPS Westbound					EL CAMINO REAL Northbound					SR-78 WB RAMPS Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 11:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15																					
07:15	0	414	103	0	517	62	0	87	0	149	30	140	0	0	170	0	0	0	0	0	836
07:30	0	439	110	0	549	93	0	85	0	178	29	160	0	0	189	0	0	0	0	0	916
07:45	0	459	119	0	578	101	0	121	0	222	28	207	0	0	235	0	0	0	0	0	1035
08:00	0	346	106	0	452	81	0	103	0	184	38	241	0	0	279	0	0	0	0	0	915
Total Volume	0	1658	438	0	2096	337	0	396	0	733	125	748	0	0	873	0	0	0	0	0	3702
% App. Total	0	79.1	20.9	0		46	0	54	0		14.3	85.7	0	0		0	0	0	0		
PHF	.000	.903	.920	.000	.907	.834	.000	.818	.000	.825	.822	.776	.000	.000	.782	.000	.000	.000	.000	.000	.894



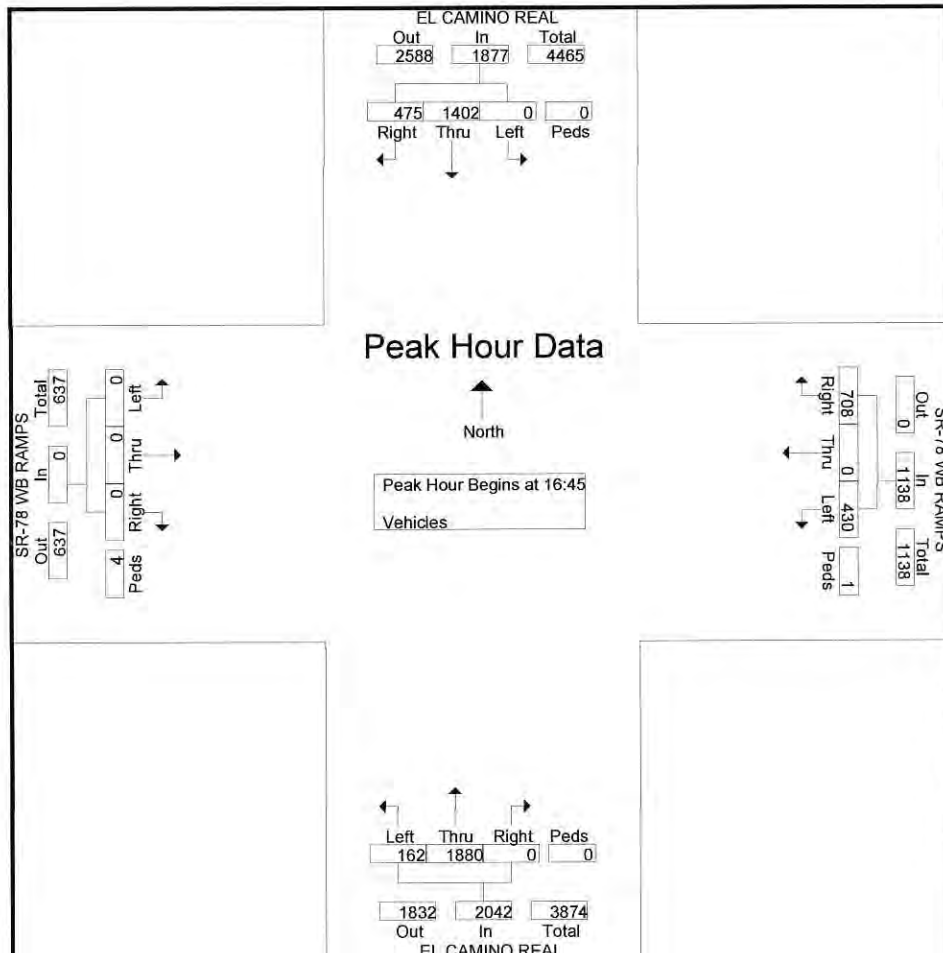
True Count

4401 Twain Ave, Suite 27
San Diego, CA 92120

2-P
EX

File Name : 1109.02.EL CAMINO REAL.SR-78 WB RAMPS
Site Code : 00000000
Start Date : 1/18/2011
Page No : 3

	EL CAMINO REAL Southbound					SR-78 WB RAMPS Westbound					EL CAMINO REAL Northbound					SR-78 WB RAMPS Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:45																					
16:45	0	323	118	0	441	113	0	180	0	293	51	465	0	0	516	0	0	0	2	2	1252
17:00	0	371	122	0	493	108	0	174	1	283	44	474	0	0	518	0	0	0	0	0	1294
17:15	0	382	125	0	507	103	0	177	0	280	26	480	0	0	506	0	0	0	2	2	1295
17:30	0	326	110	0	436	106	0	177	0	283	41	461	0	0	502	0	0	0	0	0	1221
Total Volume	0	1402	475	0	1877	430	0	708	1	1139	162	1880	0	0	2042	0	0	0	4	4	5062
% App. Total	0	74.7	25.3	0		37.8	0	62.2	0.1		7.9	92.1	0	0		0	0	0	100		
PHF	.000	.918	.950	.000	.926	.951	.000	.983	.250	.972	.794	.979	.000	.000	.986	.000	.000	.000	.500	.500	.977



3-A#P
EX

True Count
4401 Twain Ave, Suite 27
San Diego, CA 92120

File Name : 1109.03.EL CAMINO REAL.SR-78 EB RAMPS
Site Code : 00000000
Start Date : 1/18/2011
Page No : 1

Groups Printed- Vehicles

Start Time	EL CAMINO REAL Southbound				SR-78 EB RAMPS Westbound				EL CAMINO REAL Northbound				SR-78 EB RAMPS Eastbound				Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
07:00	135	224	0	0	0	0	0	1	0	88	68	0	50	0	15	0	581
07:15	149	323	0	0	0	0	0	0	0	121	80	0	63	0	22	0	758
07:30	113	416	0	0	0	0	0	0	0	114	68	0	73	0	26	4	814
07:45	137	420	0	0	0	0	0	1	0	151	94	0	78	0	33	0	914
Total	534	1383	0	0	0	0	0	2	0	474	310	0	264	0	96	4	3067
08:00	115	318	0	0	0	0	0	0	0	175	79	0	101	0	35	1	824
08:15	138	302	0	0	0	0	0	0	0	123	76	0	85	0	40	4	768
08:30	89	331	0	0	0	0	0	2	0	121	84	0	74	0	21	3	725
08:45	107	280	0	0	0	0	0	0	0	159	65	1	96	0	43	2	753
Total	449	1231	0	0	0	0	0	2	0	578	304	1	356	0	139	10	3070
*** BREAK ***																	
16:00	138	361	0	0	0	0	0	0	0	286	131	0	132	0	67	1	1116
16:15	120	348	0	0	0	0	0	0	0	330	128	0	175	0	63	0	1164
16:30	121	330	0	0	0	0	0	2	0	287	111	0	143	0	72	2	1068
16:45	112	322	0	0	0	0	0	2	0	346	123	0	135	0	61	2	1103
Total	491	1361	0	0	0	0	0	4	0	1249	493	0	585	0	263	5	4451
17:00	133	347	0	0	0	0	0	0	0	338	124	1	146	0	57	1	1147
17:15	135	358	0	0	0	0	0	1	0	349	125	0	158	0	65	2	1193
17:30	123	304	0	0	0	0	0	0	0	360	118	0	147	0	67	1	1120
17:45	113	321	0	0	0	0	0	0	0	341	118	0	163	0	62	0	1118
Total	504	1330	0	0	0	0	0	1	0	1388	485	1	614	0	251	4	4578
Grand Total	1978	5305	0	0	0	0	0	9	0	3689	1592	2	1819	0	749	23	15166
Apprch %	27.2	72.8	0	0	0	0	0	100	0	69.8	30.1	0	70.2	0	28.9	0.9	
Total %	13	35	0	0	0	0	0	0.1	0	24.3	10.5	0	12	0	4.9	0.2	

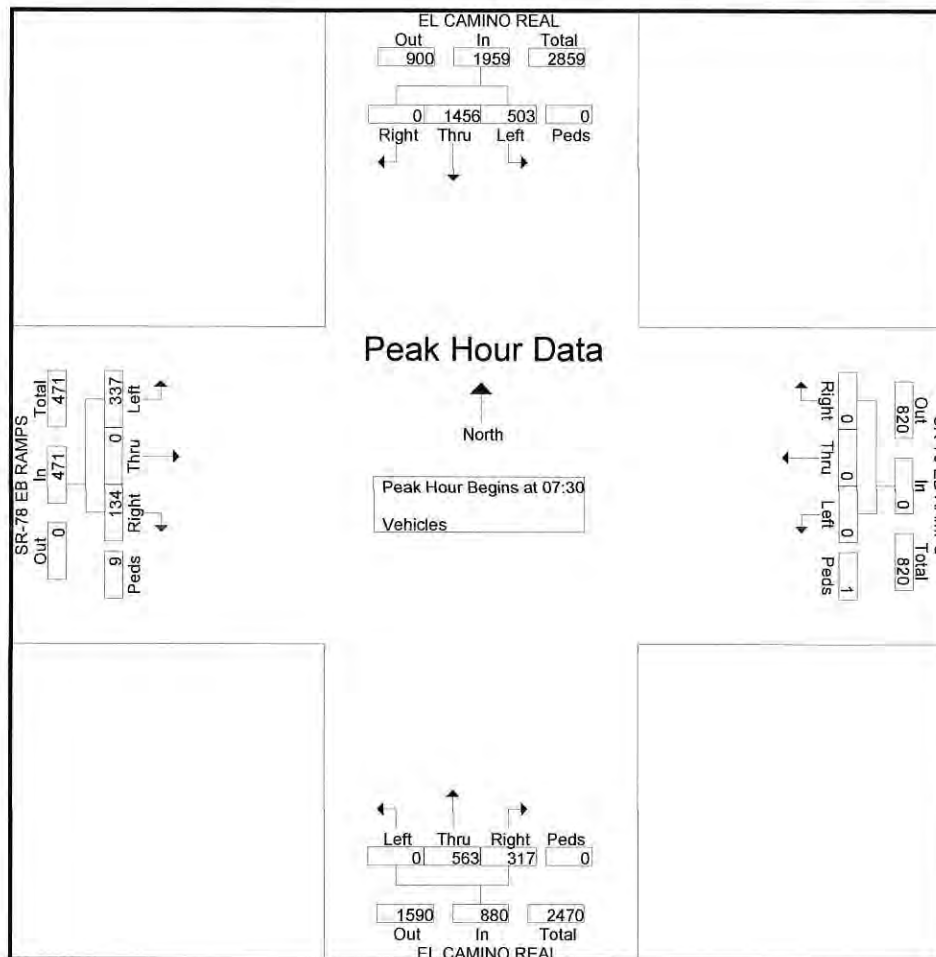
True Count

4401 Twain Ave, Suite 27
San Diego, CA 92120

3-A
EX

File Name : 1109.03.EL CAMINO REAL.SR-78 EB RAMPS
Site Code : 00000000
Start Date : 1/18/2011
Page No : 2

	EL CAMINO REAL Southbound					SR-78 EB RAMPS Westbound					EL CAMINO REAL Northbound					SR-78 EB RAMPS Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 11:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30																					
07:30	113	416	0	0	529	0	0	0	0	0	0	114	68	0	182	73	0	26	4	103	814
07:45	137	420	0	0	557	0	0	0	1	1	0	151	94	0	245	78	0	33	0	111	914
08:00	115	318	0	0	433	0	0	0	0	0	0	175	79	0	254	101	0	35	1	137	824
08:15	138	302	0	0	440	0	0	0	0	0	0	123	76	0	199	85	0	40	4	129	768
Total Volume	503	1456	0	0	1959	0	0	0	1	1	0	563	317	0	880	337	0	134	9	480	3320
% App. Total	25.7	74.3	0	0		0	0	0	100		0	64	36	0		70.2	0	27.9	1.9		
PHF	.911	.867	.000	.000	.879	.000	.000	.000	.250	.250	.000	.804	.843	.000	.866	.834	.000	.838	.563	.876	.908



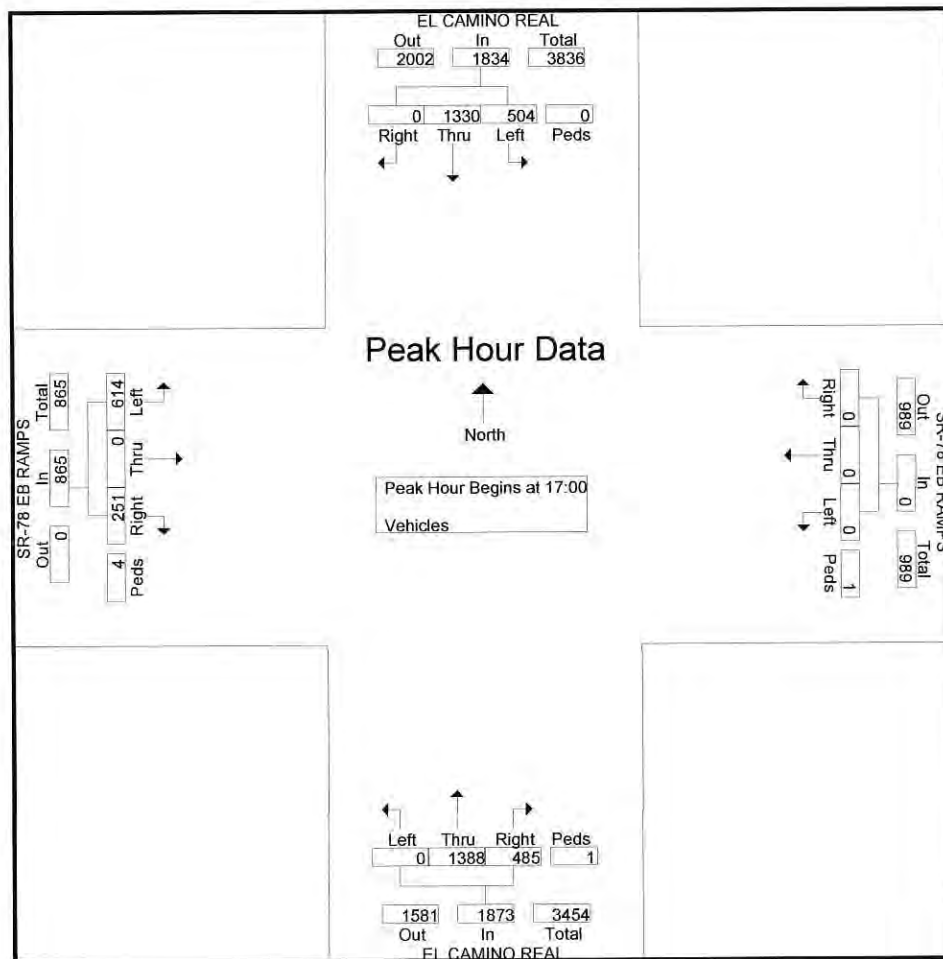
True Count

4401 Twain Ave, Suite 27
San Diego, CA 92120

3-P
EX

File Name : 1109.03.EL CAMINO REAL.SR-78 EB RAMP
Site Code : 00000000
Start Date : 1/18/2011
Page No : 3

	EL CAMINO REAL Southbound					SR-78 EB RAMP Westbound					EL CAMINO REAL Northbound					SR-78 EB RAMP Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 17:00																					
17:00	133	347	0	0	480	0	0	0	0	0	0	338	124	1	463	146	0	57	1	204	1147
17:15	135	358	0	0	493	0	0	0	1	1	0	349	125	0	474	158	0	65	2	225	1193
17:30	123	304	0	0	427	0	0	0	0	0	0	360	118	0	478	147	0	67	1	215	1120
17:45	113	321	0	0	434	0	0	0	0	0	0	341	118	0	459	163	0	62	0	225	1118
Total Volume	504	1330	0	0	1834	0	0	0	1	1	0	1388	485	1	1874	614	0	251	4	869	4578
% App. Total	27.5	72.5	0	0		0	0	0	100		0	74.1	25.9	0.1		70.7	0	28.9	0.5		
PHF	.933	.929	.000	.000	.930	.000	.000	.000	.250	.250	.000	.964	.970	.250	.980	.942	.000	.937	.500	.966	.959



4-A
EX

El Camino Real at Plaza Drive

Lane Configuration for Intersection Capacity Utilization

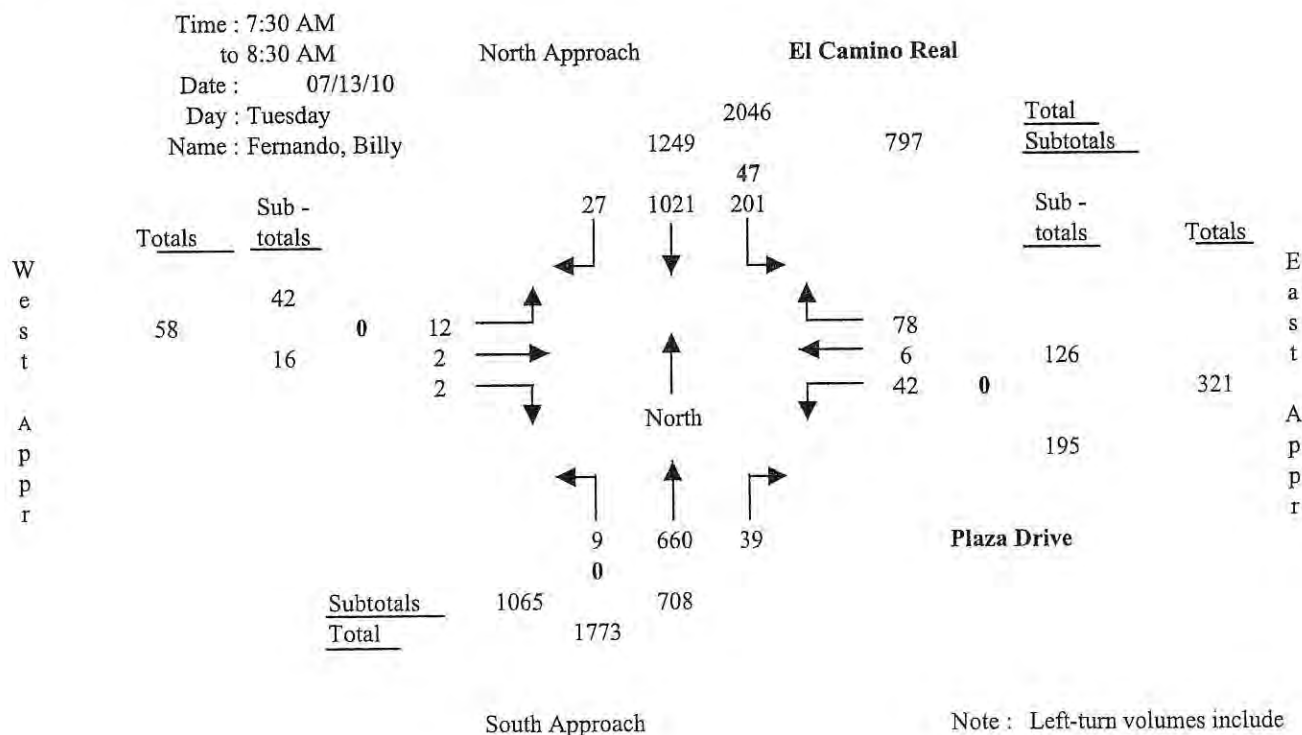
Page 2 of 3

Pl. Hr. Time Period :		South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
7:30 AM to 8:30 AM		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside	1	1		1			1					
	(left)	2	1		1			1	1		1	1	
		3		1		1				1			1
		4		1		1							
		5		1	1		1						
		6											
	Outside Free-flow	7											
Lane Settings		2	3	0	2	3	0	2	0	1	0	1	1
Capacity		3600	6000	0	3600	6000	0	3800	0	1800	0	2000	1800
Are the North/South phases split (Y/N)?				N									
Are the East/West phases split (Y/N)?				Y									
Efficiency Lost Factor		0.10											
Hourly Volume		9	660	39	201	1021	27	12	2	2	42	6	78
Adjusted Hourly Volume		9	699	0	201	1048	0	16	0	4	0	48	126
Utilization Factor		0.00	0.12	0.00	0.06	0.17	0.00	0.00	0.00	0.00	0.00	0.02	0.07
Critical Factors		0.00				0.17		0.00					0.07

ICU Ratio = 0.34 LOS = A

Turning Movements at Intersection of :

El Camino Real and Plaza Drive



4-P
EX

El Camino Real at Plaza Drive

Lane Configuration for Intersection Capacity Utilization

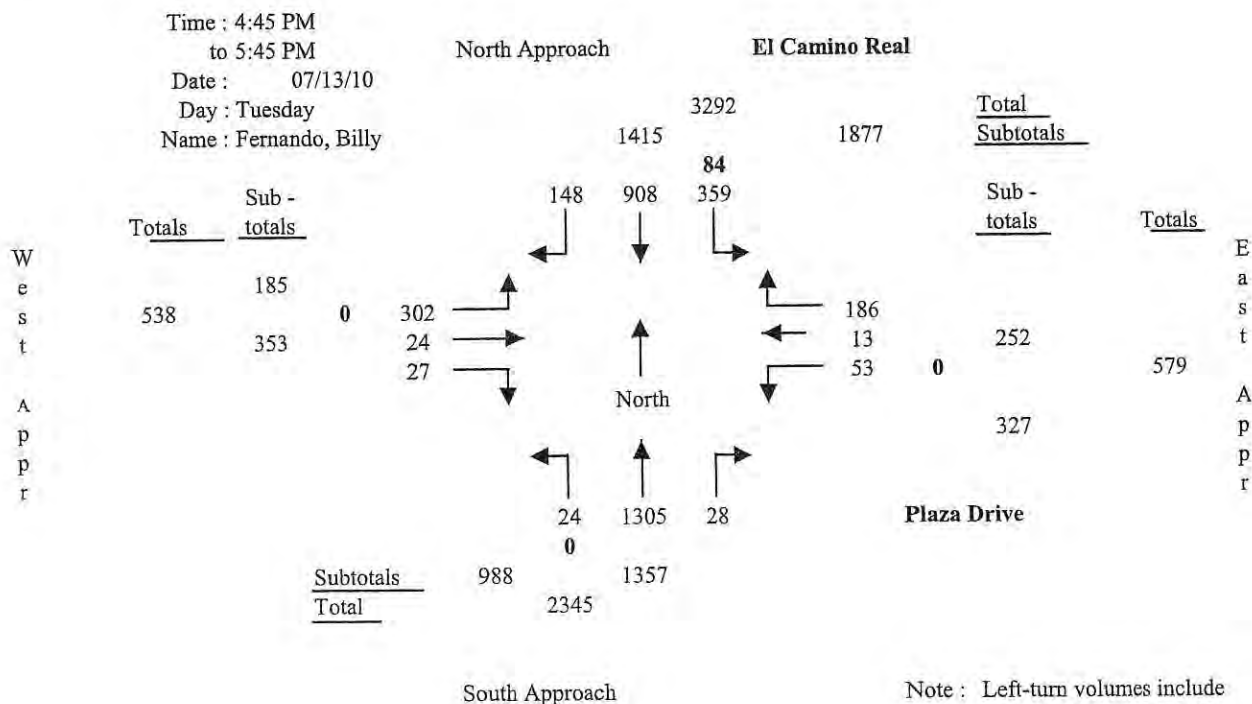
Page 3 of 3

Pk. Hr. Time Period :		South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
4:45 PM to 5:45 PM		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane	Inside	1	1		1			1					
Config -	(left)	2	1		1			1	1		1	1	
urations		3		1		1				1			1
		4		1		1							
		5		1		1	1						
		6											
	Outside	7											
	Free-flow												
Lane Settings		2	3	0	2	3	0	2	0	1	0	1	1
Capacity		3600	6000	0	3600	6000	0	3800	0	1800	0	2000	1800
Are the North/South phases split (Y/N)?				N									
Are the East/West phases split (Y/N)?				Y									
Efficiency Lost Factor		0.10											
Hourly Volume		24	1305	28	359	908	148	302	24	27	53	13	186
Adjusted Hourly Volume		24	1333	0	359	1056	0	353	0	51	0	66	252
Utilization Factor		0.01	0.22	0.00	0.10	0.18	0.00	0.09	0.00	0.03	0.00	0.03	0.14
Critical Factors			0.22		0.10			0.09					0.14

ICU Ratio = 0.65 LOS = B

Turning Movements at Intersection of :

El Camino Real and Plaza Drive



S-A
EX

El Camino Real at Marron Road

Lane Configuration for Intersection Capacity Utilization

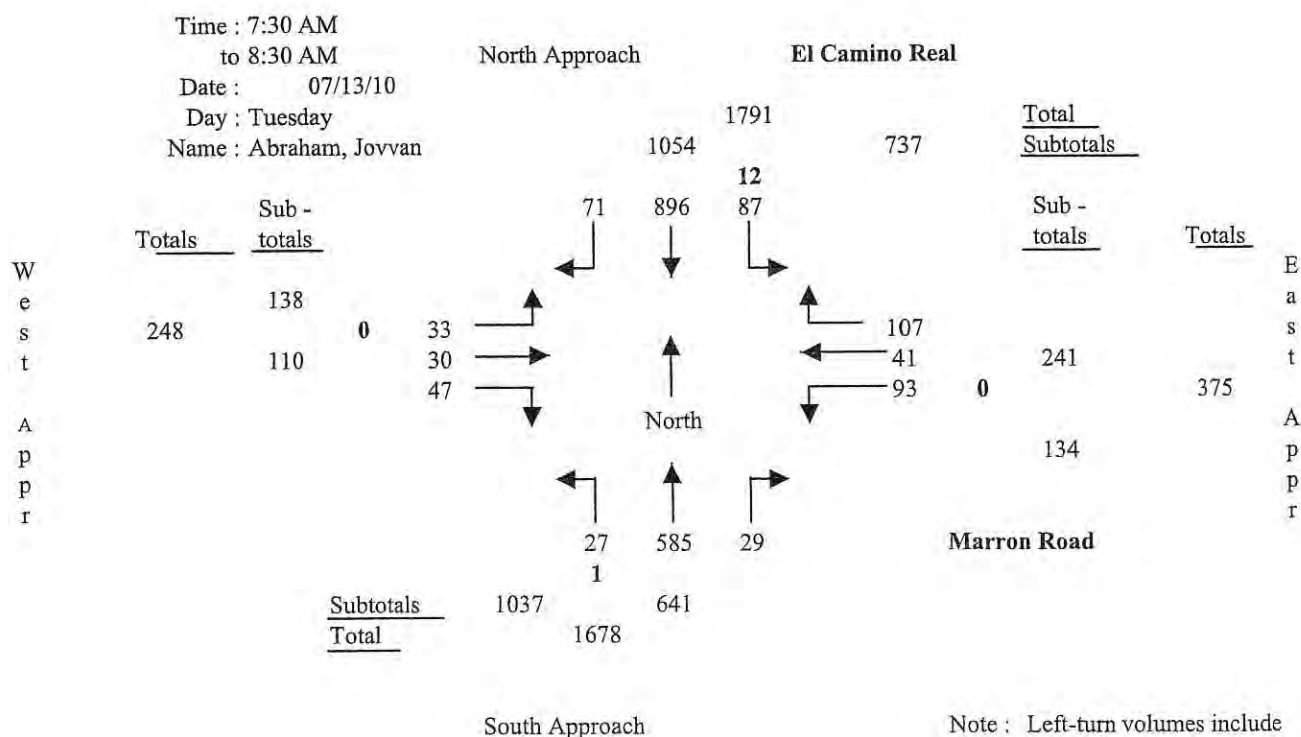
Page 2 of 3

Pk. Hr. Time Period :		South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
7:30 AM to 8:30 AM		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside	1	1		1								
	(left)	2	1		1			1			1		
		3		1		1			1			1	
		4		1		1			1	1		1	1
		5		1		1	1						
		6											
	Outside Free-flow	7											
Lane Settings		2	3	0	2	3	0	1	2	0	1	2	0
Capacity		3600	6000	0	3600	6000	0	1800	4000	0	1800	4000	0
Are the North/South phases split (Y/N)?				N									
Are the East/West phases split (Y/N)?				N									
Efficiency Lost Factor		0.10											
Hourly Volume		27	585	29	87	896	71	33	30	47	93	41	107
Adjusted Hourly Volume		27	614	0	87	967	0	33	77	0	93	148	0
Utilization Factor		0.01	0.10	0.00	0.02	0.16	0.00	0.02	0.02	0.00	0.05	0.04	0.00
Critical Factors		0.01				0.16			0.02		0.05		

ICU Ratio = 0.34 LOS = A

Turning Movements at Intersection of :

El Camino Real and Marron Road



El Camino Real at Marron Road

Lane Configuration for Intersection Capacity Utilization

Page 3 of 3

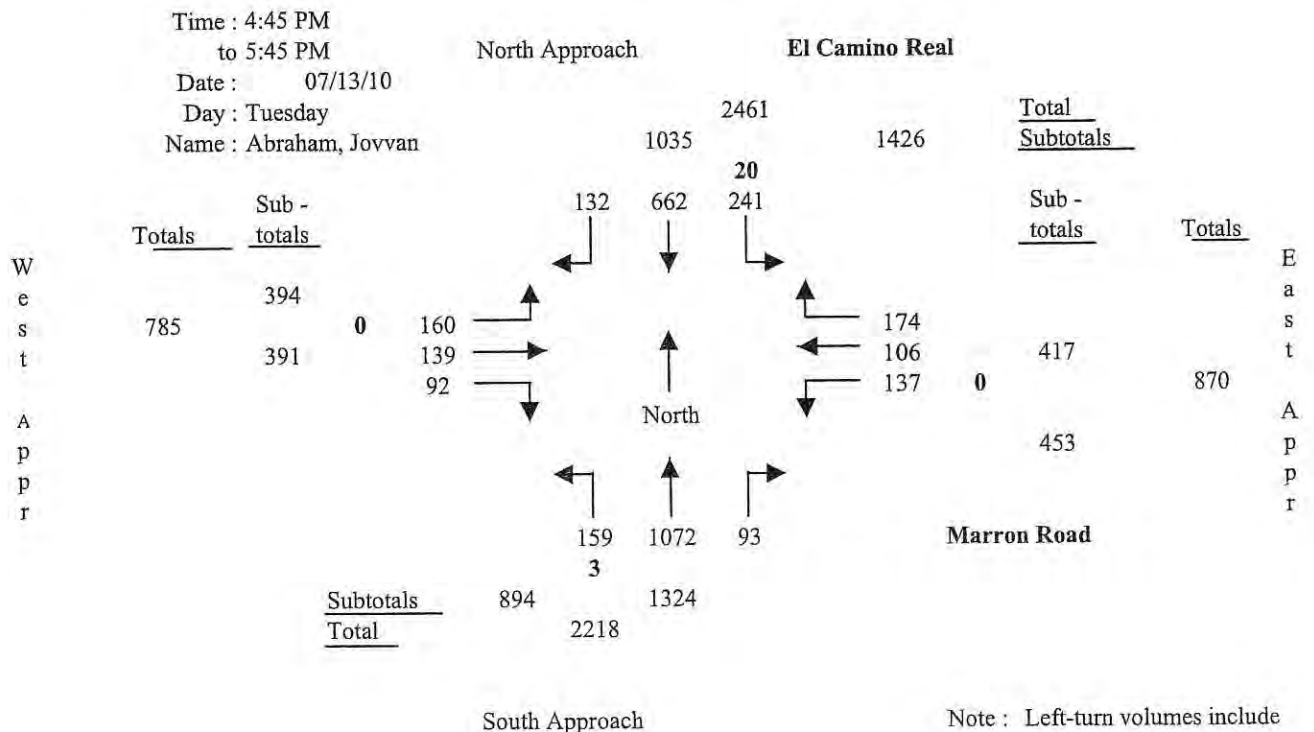
5-P
EX

Pk. Hr. Time Period :		South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
4:45 PM to 5:45 PM		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside	1	1		1								
	(left)	2	1		1			1			1		
		3		1		1			1			1	
		4		1		1			1	1		1	1
		5		1		1	1						
		6											
	Outside Free-flow	7											
Lane Settings		2	3	0	2	3	0	1	2	0	1	2	0
Capacity		3600	6000	0	3600	6000	0	1800	4000	0	1800	4000	0
Are the North/South phases split (Y/N)?				N									
Are the East/West phases split (Y/N)?				N									
Efficiency Lost Factor		0.10											
Hourly Volume		159	1072	93	241	662	132	160	139	92	137	106	174
Adjusted Hourly Volume		159	1165	0	241	794	0	160	231	0	137	280	0
Utilization Factor		0.04	0.19	0.00	0.07	0.13	0.00	0.09	0.06	0.00	0.08	0.07	0.00
Critical Factors			0.19		0.07			0.09				0.07	

ICU Ratio = 0.52 LOS = A

Turning Movements at Intersection of :

El Camino Real and Marron Road



G-A
EX

El Camino Real at Carlsbad Village Drive

Lane Configuration for Intersection Capacity Utilization

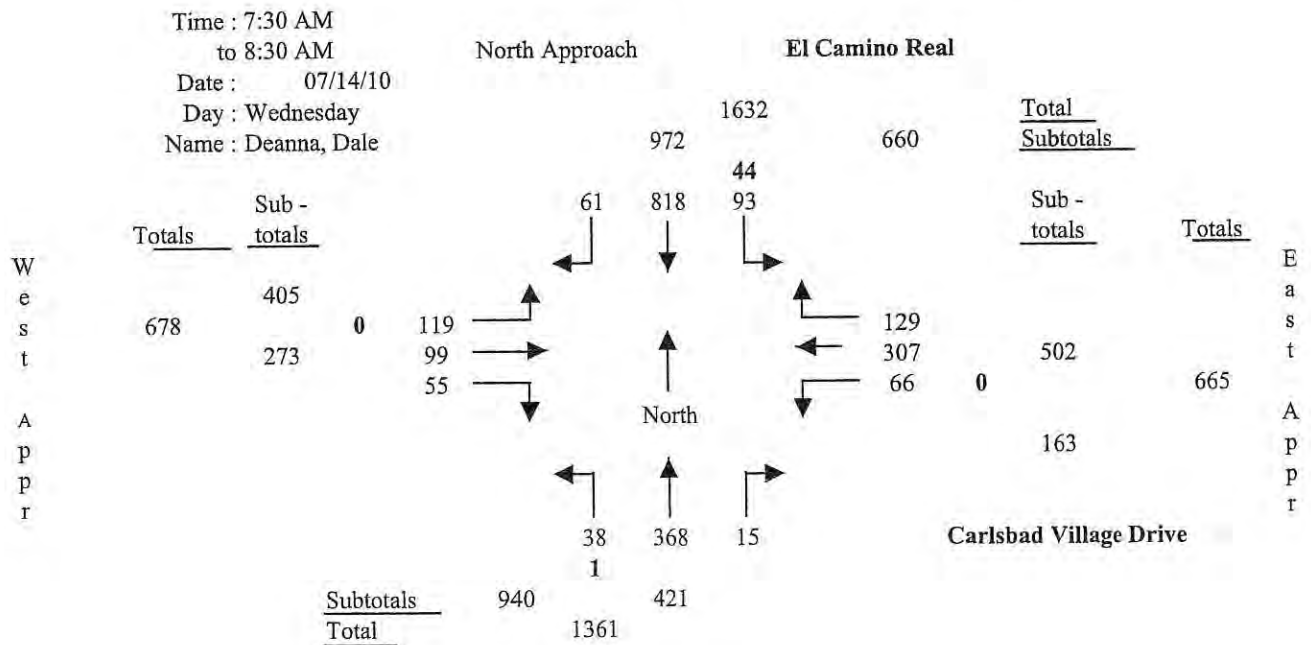
Page 2 of 3

Pk. Hr. Time Period :		South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
7:30 AM to 8:30 AM		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane	Inside	1	1		1			1			1		
Config -	(left)	2		1		1			1			1	
urations		3		1		1			1	1		1	1
		4		1		1	1						
		5											
		6											
	Outside	7											
	Free-flow												
Lane Settings		1	3	0	1	3	0	1	2	0	1	2	0
Capacity		1800	6000	0	1800	6000	0	1800	4000	0	1800	4000	0
Are the North/South phases split (Y/N)?				N									
Are the East/West phases split (Y/N)?				N									
Efficiency Lost Factor		0.10											
Hourly Volume		38	368	15	93	818	61	119	99	55	66	307	129
Adjusted Hourly Volume		38	383	0	93	879	0	119	154	0	66	436	0
Utilization Factor		0.02	0.06	0.00	0.05	0.15	0.00	0.07	0.04	0.00	0.04	0.11	0.00
Critical Factors		0.02				0.15		0.07				0.11	

ICU Ratio = 0.45 LOS = A

Turning Movements at Intersection of :

El Camino Real and Carlsbad Village Drive



Note : Left-turn volumes include U-turns. U-turns in bold.

GP
EX

El Camino Real at Carlsbad Village Drive

Lane Configuration for Intersection Capacity Utilization

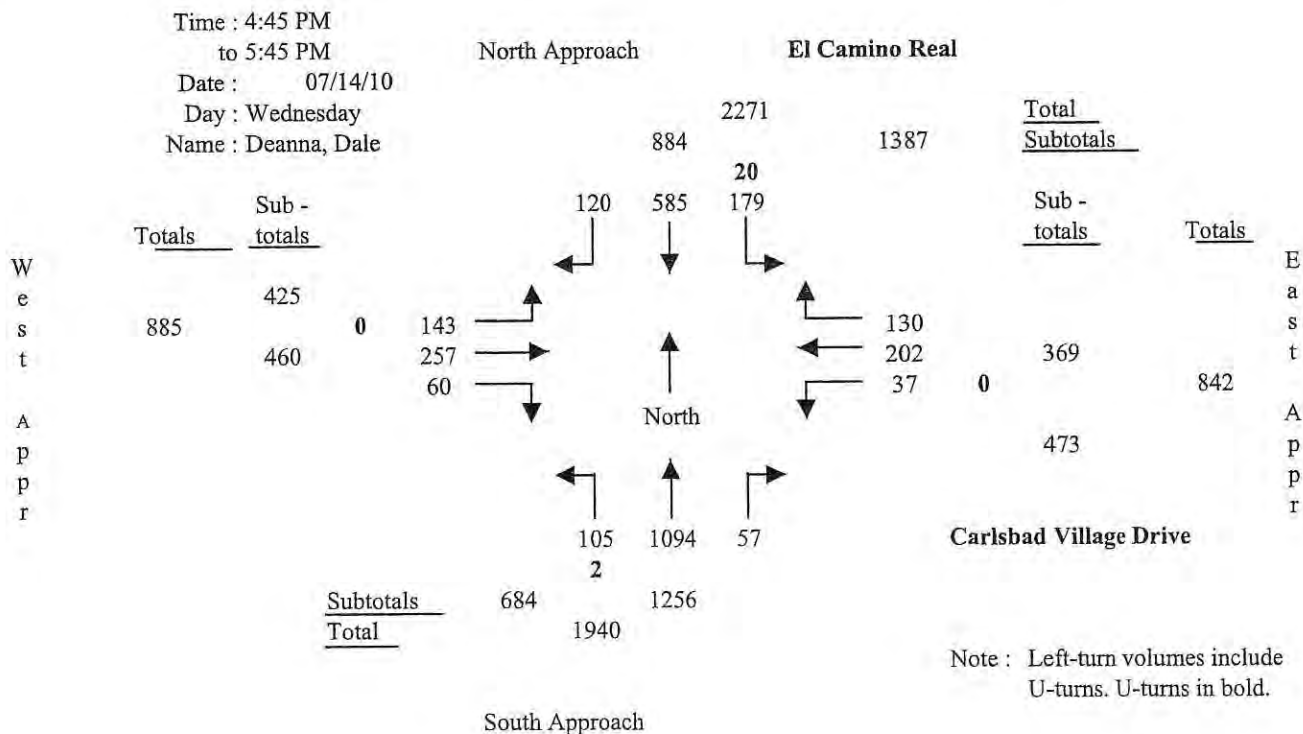
Page 3 of 3

Pk. Hr. Time Period :		South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
4:45 PM to 5:45 PM		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside	1	1		1			1			1		
	(left)	2		1		1			1			1	
		3		1		1			1	1		1	1
		4		1	1		1						
		5											
		6											
	Outside Free-flow	7											
Lane Settings		1	3	0	1	3	0	1	2	0	1	2	0
Capacity		1800	6000	0	1800	6000	0	1800	4000	0	1800	4000	0
Are the North/South phases split (Y/N)?				N									
Are the East/West phases split (Y/N)?				N									
Efficiency Lost Factor		0.10											
Hourly Volume		105	1094	57	179	585	120	143	257	60	37	202	130
Adjusted Hourly Volume		105	1151	0	179	705	0	143	317	0	37	332	0
Utilization Factor		0.06	0.19	0.00	0.10	0.12	0.00	0.08	0.08	0.00	0.02	0.08	0.00
Critical Factors			0.19		0.10			0.08				0.08	

ICU Ratio = 0.55 LOS = A

Turning Movements at Intersection of :

El Camino Real and Carlsbad Village Drive



True Count
4401 Twain Ave, Suite 27
San Diego, CA 92120

7-A&P
EX

File Name : 1109.10.RANCHO DEL ORO DR.VISTA WY
Site Code : 00000000
Start Date : 1/25/2011
Page No : 1

Groups Printed- Vehicles

Start Time	RANCHO DEL ORO DR Southbound				VISTA WY Westbound				RANCHO DEL ORO DR Northbound				VISTA WY Eastbound				Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
07:00	64	4	80	0	8	34	38	0	0	0	3	0	40	17	3	2	293
07:15	89	1	85	1	2	37	26	0	2	0	5	1	38	40	3	0	330
07:30	87	4	80	1	17	40	36	0	3	1	1	1	69	30	7	0	377
07:45	74	11	100	0	19	46	46	1	4	1	2	0	41	33	5	1	384
Total	314	20	345	2	46	157	146	1	9	2	11	2	188	120	18	3	1384
08:00	59	7	69	0	23	40	40	0	4	0	2	0	46	32	14	0	336
08:15	54	9	54	0	17	38	23	0	5	4	2	0	22	32	24	0	284
08:30	57	8	49	2	23	46	28	0	9	2	3	0	50	35	12	0	324
08:45	49	7	74	0	18	62	36	0	4	3	4	0	39	40	20	0	356
Total	219	31	246	2	81	186	127	0	22	9	11	0	157	139	70	0	1300
*** BREAK ***																	
16:00	60	2	68	2	7	73	48	0	9	6	4	0	91	81	5	1	457
16:15	60	1	66	0	6	100	60	0	7	8	4	1	87	78	5	0	483
16:30	44	1	67	0	10	71	56	0	9	14	3	0	125	97	3	0	500
16:45	71	3	69	0	5	74	53	0	4	13	3	0	96	92	2	1	486
Total	235	7	270	2	28	318	217	0	29	41	14	1	399	348	15	2	1926
17:00	51	3	63	1	2	76	60	0	11	8	4	0	115	127	4	0	525
17:15	50	1	70	1	2	74	78	0	6	6	0	1	109	106	1	0	505
17:30	44	1	86	0	2	67	63	0	5	4	1	0	132	102	2	0	509
17:45	46	1	71	1	1	73	54	0	3	0	1	0	125	94	1	0	471
Total	191	6	290	3	7	290	255	0	25	18	6	1	481	429	8	0	2010
Grand Total	959	64	1151	9	162	951	745	1	85	70	42	4	1225	1036	111	5	6620
Apprch %	43.9	2.9	52.7	0.4	8.7	51.2	40.1	0.1	42.3	34.8	20.9	2	51.5	43.6	4.7	0.2	
Total %	14.5	1	17.4	0.1	2.4	14.4	11.3	0	1.3	1.1	0.6	0.1	18.5	15.6	1.7	0.1	

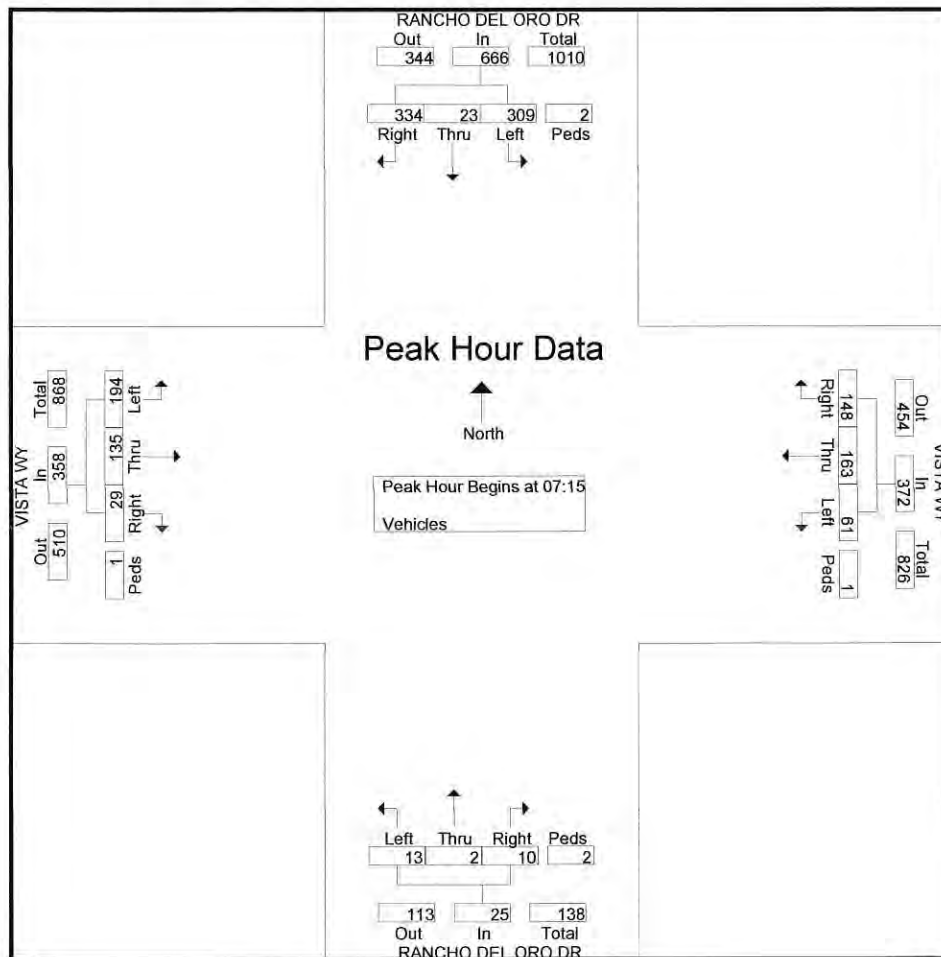
True Count

4401 Twain Ave, Suite 27
San Diego, CA 92120

7-A
EX

File Name : 1109.10.RANCHO DEL ORO DR.VISTA WY
Site Code : 00000000
Start Date : 1/25/2011
Page No : 2

	RANCHO DEL ORO DR Southbound					VISTA WY Westbound					RANCHO DEL ORO DR Northbound					VISTA WY Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 11:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15																					
07:15	89	1	85	1	176	2	37	26	0	65	2	0	5	1	8	38	40	3	0	81	330
07:30	87	4	80	1	172	17	40	36	0	93	3	1	1	1	6	69	30	7	0	106	377
07:45	74	11	100	0	185	19	46	46	1	112	4	1	2	0	7	41	33	5	1	80	384
08:00	59	7	69	0	135	23	40	40	0	103	4	0	2	0	6	46	32	14	0	92	336
Total Volume	309	23	334	2	668	61	163	148	1	373	13	2	10	2	27	194	135	29	1	359	1427
% App. Total	46.3	3.4	50	0.3		16.4	43.7	39.7	0.3		48.1	7.4	37	7.4		54	37.6	8.1	0.3		
PHF	.868	.523	.835	.500	.903	.663	.886	.804	.250	.833	.813	.500	.500	.500	.844	.703	.844	.518	.250	.847	.929



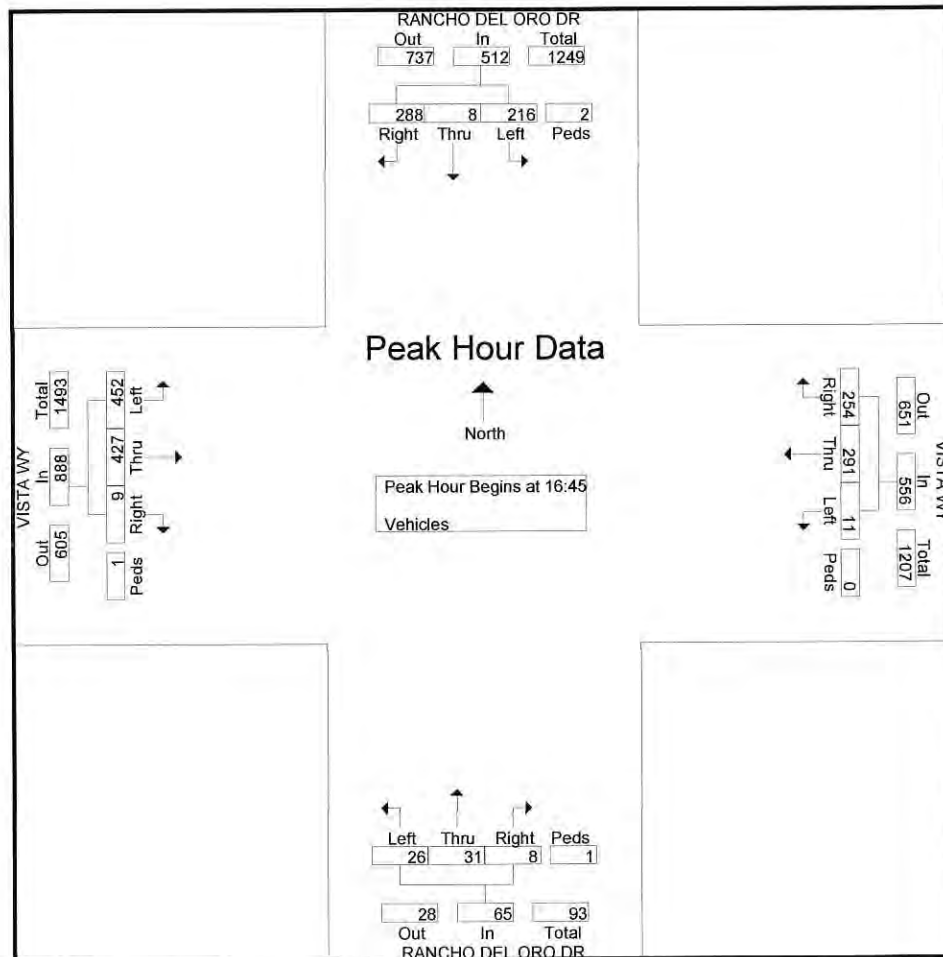
True Count

4401 Twain Ave, Suite 27
San Diego, CA 92120

7-8
EX

File Name : 1109.10.RANCHO DEL ORO DR.VISTA WY
Site Code : 00000000
Start Date : 1/25/2011
Page No : 3

	RANCHO DEL ORO DR Southbound					VISTA WY Westbound					RANCHO DEL ORO DR Northbound					VISTA WY Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:45																					
16:45	71	3	69	0	143	5	74	53	0	132	4	13	3	0	20	96	92	2	1	191	486
17:00	51	3	63	1	118	2	76	60	0	138	11	8	4	0	23	115	127	4	0	246	525
17:15	50	1	70	1	122	2	74	78	0	154	6	6	0	1	13	109	106	1	0	216	505
17:30	44	1	86	0	131	2	67	63	0	132	5	4	1	0	10	132	102	2	0	236	509
Total Volume	216	8	288	2	514	11	291	254	0	556	26	31	8	1	66	452	427	9	1	889	2025
% App. Total	42	1.6	56	0.4		2	52.3	45.7	0		39.4	47	12.1	1.5		50.8	48	1	0.1		
PHF	.761	.667	.837	.500	.899	.550	.957	.814	.000	.903	.591	.596	.500	.250	.717	.856	.841	.563	.250	.903	.964



True Count
4401 Twain Ave, Suite 27
San Diego, CA 92120

11. AHP
EX

File Name : 1109.07.COLLEGE BLVD.W VISTA WY
Site Code : 00000000
Start Date : 1/18/2011
Page No : 1

Groups Printed- Vehicles

	COLLEGE BLVD Southbound				VISTA WAY Westbound				COLLEGE BLVD Northbound				VISTA WAY Eastbound				
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Int. Total
07:00	4	375	6	0	84	27	33	0	17	105	123	0	3	16	79	0	872
07:15	4	403	5	0	83	19	57	0	29	121	159	0	8	26	112	0	1026
07:30	5	404	4	0	117	40	62	1	38	130	146	0	6	32	102	0	1087
07:45	17	355	15	0	118	48	49	0	52	178	201	0	10	38	97	0	1178
Total	30	1537	30	0	402	134	201	1	136	534	629	0	27	112	390	0	4163
08:00	20	245	11	0	112	43	58	0	32	163	187	0	20	25	89	0	1005
08:15	9	294	8	0	91	69	63	0	38	131	168	0	6	22	95	0	994
08:30	10	297	11	0	96	43	49	0	34	155	196	0	9	32	82	0	1014
08:45	9	276	16	0	94	44	67	0	43	153	176	0	14	29	77	0	998
Total	48	1112	46	0	393	199	237	0	147	602	727	0	49	108	343	0	4011
*** BREAK ***																	
16:00	9	277	20	2	101	86	92	4	58	289	162	0	35	32	66	0	1233
16:15	9	240	24	0	125	76	93	5	67	324	171	0	16	28	98	0	1276
16:30	7	291	29	0	138	79	73	0	75	304	176	0	21	38	96	0	1327
16:45	13	269	16	0	109	100	94	2	64	307	155	0	18	50	76	0	1273
Total	38	1077	89	2	473	341	352	11	264	1224	664	0	90	148	336	0	5109
17:00	8	262	23	0	148	75	75	1	79	297	144	0	42	46	108	0	1308
17:15	8	325	24	2	116	87	101	7	73	271	158	0	37	67	97	0	1373
17:30	9	236	25	1	108	66	95	1	80	285	135	0	38	46	100	0	1225
17:45	9	231	28	1	125	61	71	3	52	254	141	0	32	55	72	0	1135
Total	34	1054	100	4	497	289	342	12	284	1107	578	0	149	214	377	0	5041
Grand Total	150	4780	265	6	1765	963	1132	24	831	3467	2598	0	315	582	1446	0	18324
Apprch %	2.9	91.9	5.1	0.1	45.4	24.8	29.1	0.6	12.1	50.3	37.7	0	13.4	24.8	61.7	0	
Total %	0.8	26.1	1.4	0	9.6	5.3	6.2	0.1	4.5	18.9	14.2	0	1.7	3.2	7.9	0	

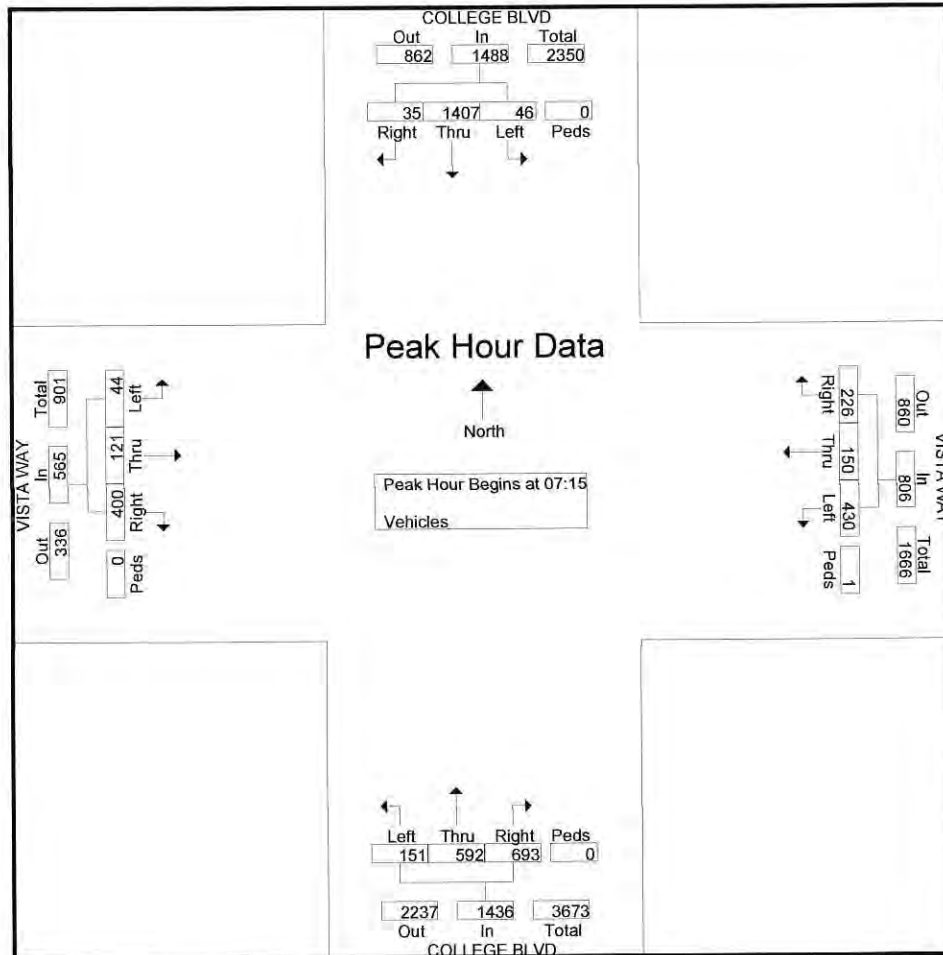
True Count

4401 Twain Ave, Suite 27
San Diego, CA 92120

11-A
EX

File Name : 1109.07.COLLEGE BLVD.W VISTA WY
Site Code : 00000000
Start Date : 1/18/2011
Page No : 2

	COLLEGE BLVD Southbound					VISTA WAY Westbound					COLLEGE BLVD Northbound					VISTA WAY Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 11:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15																					
07:15	4	403	5	0	412	83	19	57	0	159	29	121	159	0	309	8	26	112	0	146	1026
07:30	5	404	4	0	413	117	40	62	1	220	38	130	146	0	314	6	32	102	0	140	1087
07:45	17	355	15	0	387	118	48	49	0	215	52	178	201	0	431	10	38	97	0	145	1178
08:00	20	245	11	0	276	112	43	58	0	213	32	163	187	0	382	20	25	89	0	134	1005
Total Volume	46	1407	35	0	1488	430	150	226	1	807	151	592	693	0	1436	44	121	400	0	565	4296
% App. Total	3.1	94.6	2.4	0		53.3	18.6	28	0.1		10.5	41.2	48.3	0		7.8	21.4	70.8	0		
PHF	.575	.871	.583	.000	.901	.911	.781	.911	.250	.917	.726	.831	.862	.000	.833	.550	.796	.893	.000	.967	.912



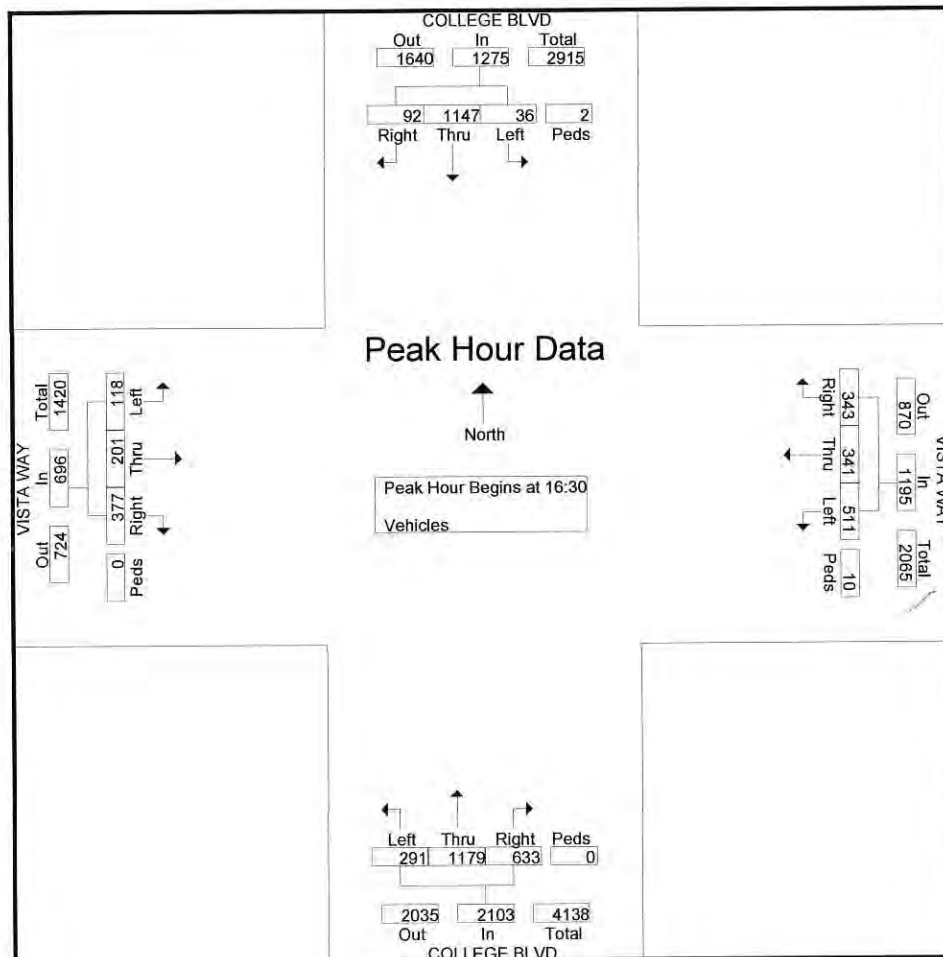
True Count

4401 Twain Ave, Suite 27
San Diego, CA 92120

11-8
EX

File Name : 1109.07.COLLEGE BLVD.W VISTA WY
Site Code : 00000000
Start Date : 1/18/2011
Page No : 3

	COLLEGE BLVD Southbound					VISTA WAY Westbound					COLLEGE BLVD Northbound					VISTA WAY Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:30																					
16:30	7	291	29	0	327	138	79	73	0	290	75	304	176	0	555	21	38	96	0	155	1327
16:45	13	269	16	0	298	109	100	94	2	305	64	307	155	0	526	18	50	76	0	144	1273
17:00	8	262	23	0	293	148	75	75	1	299	79	297	144	0	520	42	46	108	0	196	1308
17:15	8	325	24	2	359	116	87	101	7	311	73	271	158	0	502	37	67	97	0	201	1373
Total Volume	36	1147	92	2	1277	511	341	343	10	1205	291	1179	633	0	2103	118	201	377	0	696	5281
% App. Total	2.8	89.8	7.2	0.2		42.4	28.3	28.5	0.8		13.8	56.1	30.1	0		17	28.9	54.2	0		
PHF	.692	.882	.793	.250	.889	.863	.853	.849	.357	.969	.921	.960	.899	.000	.947	.702	.750	.873	.000	.866	.962



True Count
4401 Twain Ave, Suite 27
San Diego, CA 92120

12 AEP
EX

File Name : 1109.06.COLLEGE BLVD.SR-78 EB RAMP
Site Code : 00000000
Start Date : 1/18/2011
Page No : 1

Groups Printed- Vehicles

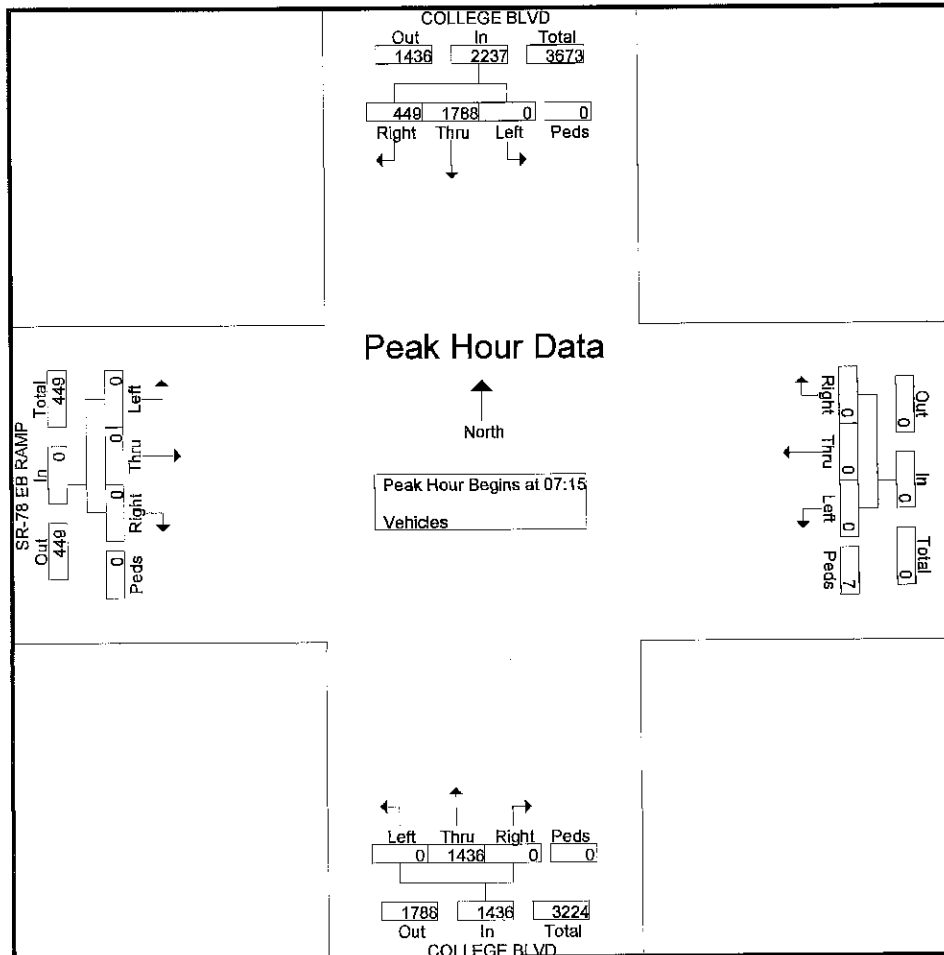
	COLLEGE BLVD Southbound				Westbound				COLLEGE BLVD Northbound				SR-78 EB RAMP Eastbound					
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Int. Total	
07:00	0	392	146	0	0	0	0	0	0	245	0	0	0	0	0	0	1	784
07:15	0	467	131	0	0	0	0	2	0	309	0	0	0	0	0	0	0	909
07:30	0	496	127	0	0	0	0	2	0	314	0	0	0	0	0	0	0	939
07:45	0	460	110	0	0	0	0	2	0	431	0	0	0	0	0	0	0	1003
Total	0	1815	514	0	0	0	0	6	0	1299	0	0	0	0	0	0	1	3635
08:00	0	365	81	0	0	0	0	1	0	382	0	0	0	0	0	0	0	829
08:15	0	387	93	0	0	0	0	3	0	337	0	0	0	0	0	0	1	821
08:30	0	372	103	0	0	0	0	0	0	385	0	0	0	0	0	0	0	860
08:45	0	362	85	0	0	0	0	2	0	372	0	0	0	0	0	0	0	821
Total	0	1486	362	0	0	0	0	6	0	1476	0	0	0	0	0	0	1	3331
*** BREAK ***																		
16:00	0	344	100	0	0	0	0	3	0	509	0	0	0	0	0	0	0	956
16:15	0	385	78	0	0	0	0	5	0	562	0	0	0	0	0	0	0	1030
16:30	0	424	101	0	0	0	0	0	0	555	0	0	0	0	0	0	0	1080
16:45	0	366	88	0	0	0	0	4	0	526	0	0	0	0	0	0	1	985
Total	0	1519	367	0	0	0	0	12	0	2152	0	0	0	0	0	0	1	4051
17:00	0	413	105	0	0	0	0	5	0	520	0	0	0	0	0	0	2	1045
17:15	0	413	125	0	0	0	0	8	0	502	0	0	0	0	0	0	1	1049
17:30	0	362	82	0	0	0	0	1	0	500	0	0	0	0	0	0	0	945
17:45	0	356	72	0	0	0	0	3	0	447	0	0	0	0	0	0	0	878
Total	0	1544	384	0	0	0	0	17	0	1969	0	0	0	0	0	0	3	3917
Grand Total	0	6364	1627	0	0	0	0	41	0	6896	0	0	0	0	0	0	6	14934
Apprch %	0	79.6	20.4	0	0	0	0	100	0	100	0	0	0	0	0	0	100	
Total %	0	42.6	10.9	0	0	0	0	0.3	0	46.2	0	0	0	0	0	0	0	

True Count
4401 Twain Ave, Suite 27
San Diego, CA 92120

12-A

File Name : 1109.06.COLLEGE BLVD.SR-78 EB RAMP
Site Code : 00000000
Start Date : 1/18/2011
Page No : 2

	COLLEGE BLVD Southbound					Westbound					COLLEGE BLVD Northbound					SR-78 EB RAMP Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 11:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15																					
07:15	0	467	131	0	598	0	0	0	2	2	0	309	0	0	309	0	0	0	0	0	909
07:30	0	496	127	0	623	0	0	0	2	2	0	314	0	0	314	0	0	0	0	0	939
07:45	0	460	110	0	570	0	0	0	2	2	0	431	0	0	431	0	0	0	0	0	1003
08:00	0	365	81	0	446	0	0	0	1	1	0	382	0	0	382	0	0	0	0	0	829
Total	0	1788	449	0	2237	0	0	0	7	7	0	1436	0	0	1436	0	0	0	0	0	3680
Volume	0	1788	449	0	2237	0	0	0	7	7	0	1436	0	0	1436	0	0	0	0	0	3680
% App. Total	0	79.9	20.1	0		0	0	0	100		0	100	0	0		0	0	0	0		
PHF	.000	.901	.857	.000	.898	.000	.000	.000	.875	.875	.000	.833	.000	.000	.833	.000	.000	.000	.000	.000	.917



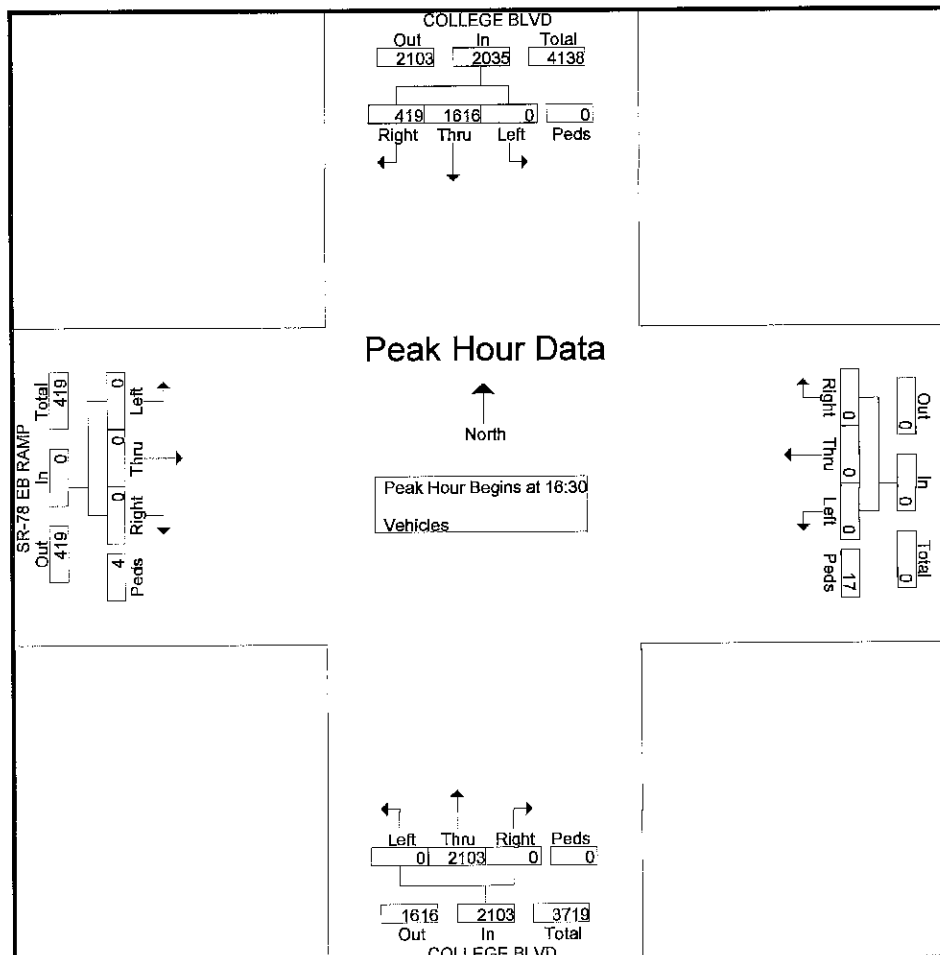
True Count

4401 Twain Ave, Suite 27
San Diego, CA 92120

12-8

File Name : 1109.06.COLLEGE BLVD.SR-78 EB RAMP
Site Code : 00000000
Start Date : 1/18/2011
Page No : 3

	COLLEGE BLVD Southbound					Westbound					COLLEGE BLVD Northbound					SR-78 EB RAMP Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:30																					
16:30	0	424	101	0	525	0	0	0	0	0	0	555	0	0	555	0	0	0	0	0	1080
16:45	0	366	88	0	454	0	0	0	4	4	0	526	0	0	526	0	0	0	1	1	985
17:00	0	413	105	0	518	0	0	0	5	5	0	520	0	0	520	0	0	0	2	2	1045
17:15	0	413	125	0	538	0	0	0	8	8	0	502	0	0	502	0	0	0	1	1	1049
Total Volume	0	1616	419	0	2035	0	0	0	17	17	0	2103	0	0	2103	0	0	0	4	4	4159
% App. Total	0	79.4	20.6	0		0	0	0	100		0	100	0	0		0	0	0	100		
PHF	.000	.953	.838	.000	.946	.000	.000	.000	.531	.531	.000	.947	.000	.000	.947	.000	.000	.000	.500	.500	.963



True Count
4401 Twain Ave, Suite 27
San Diego, CA 92120

13 Ex
A4P

File Name : 1109.05.COLLEGE BLVD.PLAZA DR
Site Code : 00000000
Start Date : 1/18/2011
Page No : 1

Groups Printed- Vehicles

Start Time	COLLEGE BLVD Southbound				PLAZA DR Westbound				COLLEGE BLVD Northbound				PLAZA DR Eastbound				Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
07:00	129	264	12	0	13	2	47	2	5	137	40	0	4	3	3	1	662
07:15	214	280	5	0	21	1	49	2	4	163	48	2	1	2	1	0	793
07:30	202	341	10	0	28	6	53	0	7	155	45	2	3	5	1	1	859
07:45	194	340	12	0	34	3	69	2	9	201	52	2	2	1	2	0	923
Total	739	1225	39	0	96	12	218	6	25	656	185	6	10	11	7	2	3237
08:00	140	276	11	0	18	4	48	1	7	181	79	1	5	4	4	0	779
08:15	157	269	12	0	23	1	57	3	7	154	55	0	3	3	5	0	749
08:30	154	267	18	0	32	2	83	0	4	166	59	0	9	6	5	0	805
08:45	164	243	15	0	29	1	74	1	6	182	72	0	8	6	0	0	801
Total	615	1055	56	0	102	8	262	5	24	683	265	1	25	19	14	0	3134
*** BREAK ***																	
16:00	184	285	9	0	45	2	106	1	4	263	25	5	15	11	3	1	959
16:15	176	293	9	0	43	2	113	0	5	304	49	2	7	7	4	0	1014
16:30	189	341	8	0	47	1	131	0	8	268	33	1	16	4	2	0	1049
16:45	172	300	4	0	26	5	100	5	5	304	24	0	5	4	11	1	966
Total	721	1219	30	0	161	10	450	6	22	1139	131	8	43	26	20	2	3988
17:00	171	337	12	0	43	5	107	1	1	274	19	5	12	13	4	1	1005
17:15	193	316	12	1	36	1	108	16	3	304	25	3	7	6	2	3	1036
17:30	182	296	5	1	29	0	94	0	1	248	73	0	16	3	2	0	950
17:45	166	279	14	0	54	8	75	1	7	242	38	1	17	9	6	1	918
Total	712	1228	43	2	162	14	384	18	12	1068	155	9	52	31	14	5	3909
Grand Total	2787	4727	168	2	521	44	1314	35	83	3546	736	24	130	87	55	9	14268
Apprch %	36.3	61.5	2.2	0	27.2	2.3	68.7	1.8	1.9	80.8	16.8	0.5	46.3	31	19.6	3.2	
Total %	19.5	33.1	1.2	0	3.7	0.3	9.2	0.2	0.6	24.9	5.2	0.2	0.9	0.6	0.4	0.1	

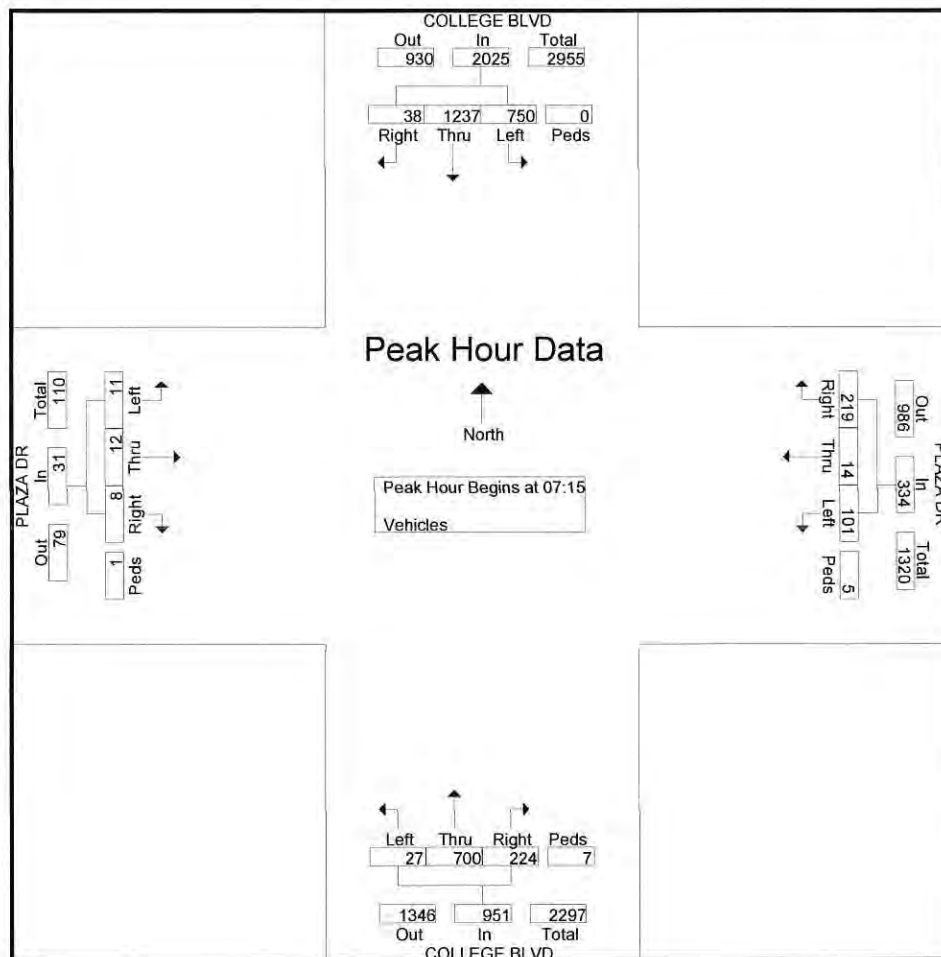
True Count

4401 Twain Ave, Suite 27
San Diego, CA 92120

13-A
EX

File Name : 1109.05.COLLEGE BLVD.PLAZA DR
Site Code : 00000000
Start Date : 1/18/2011
Page No : 2

	COLLEGE BLVD Southbound					PLAZA DR Westbound					COLLEGE BLVD Northbound					PLAZA DR Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 11:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15																					
07:15	214	280	5	0	499	21	1	49	2	73	4	163	48	2	217	1	2	1	0	4	793
07:30	202	341	10	0	553	28	6	53	0	87	7	155	45	2	209	3	5	1	1	10	859
07:45	194	340	12	0	546	34	3	69	2	108	9	201	52	2	264	2	1	2	0	5	923
08:00	140	276	11	0	427	18	4	48	1	71	7	181	79	1	268	5	4	4	0	13	779
Total Volume	750	1237	38	0	2025	101	14	219	5	339	27	700	224	7	958	11	12	8	1	32	3354
% App. Total	37	61.1	1.9	0		29.8	4.1	64.6	1.5		2.8	73.1	23.4	0.7		34.4	37.5	25	3.1		
PHF	.876	.907	.792	.000	.915	.743	.583	.793	.625	.785	.750	.871	.709	.875	.894	.550	.600	.500	.250	.615	.908



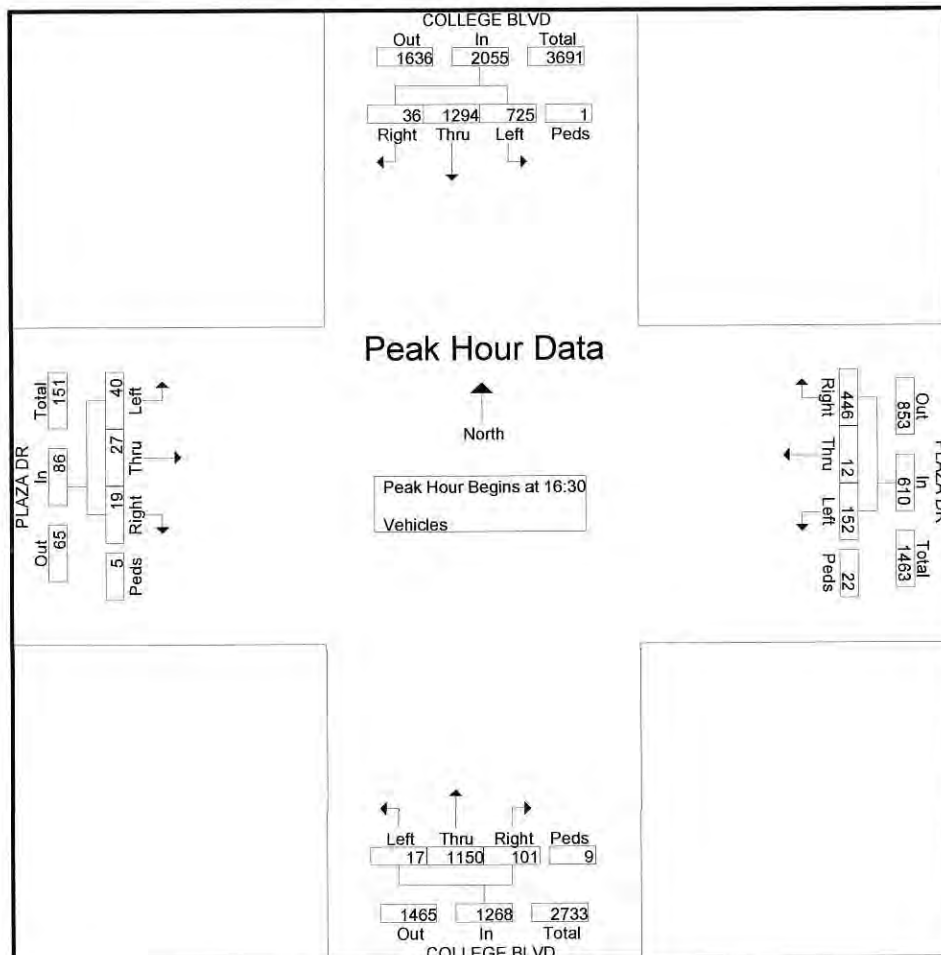
True Count

4401 Twain Ave, Suite 27
San Diego, CA 92120

13-P
EX

File Name : 1109.05.COLLEGE BLVD.PLAZA DR
Site Code : 00000000
Start Date : 1/18/2011
Page No : 3

	COLLEGE BLVD Southbound					PLAZA DR Westbound					COLLEGE BLVD Northbound					PLAZA DR Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:30																					
16:30	189	341	8	0	538	47	1	131	0	179	8	268	33	1	310	16	4	2	0	22	1049
16:45	172	300	4	0	476	26	5	100	5	136	5	304	24	0	333	5	4	11	1	21	966
17:00	171	337	12	0	520	43	5	107	1	156	1	274	19	5	299	12	13	4	1	30	1005
17:15	193	316	12	1	522	36	1	108	16	161	3	304	25	3	335	7	6	2	3	18	1036
Total Volume	725	1294	36	1	2056	152	12	446	22	632	17	1150	101	9	1277	40	27	19	5	91	4056
% App. Total	35.3	62.9	1.8	0		24.1	1.9	70.6	3.5		1.3	90.1	7.9	0.7		44	29.7	20.9	5.5		
PHF	.939	.949	.750	.250	.955	.809	.600	.851	.344	.883	.531	.946	.765	.450	.953	.625	.519	.432	.417	.758	.967



True Count
4401 Twain Ave, Suite 27
San Diego, CA 92120

14A#P
EX

File Name : 1109.04.COLLEGE BLVD.MARRON RD
Site Code : 00000000
Start Date : 1/18/2011
Page No : 1

Groups Printed- Vehicles

	COLLEGE BLVD Southbound				LAKE BLVD Westbound				COLLEGE BLVD Northbound				MARRON RD Eastbound				Int. Total
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
07:00	48	180	26	2	79	9	50	2	13	107	14	1	21	5	11	0	568
07:15	43	228	21	0	106	10	85	0	12	124	31	0	24	7	17	1	709
07:30	33	248	47	1	135	24	80	0	21	127	44	1	19	4	24	0	808
07:45	55	286	43	1	140	19	82	0	45	150	69	0	36	5	31	0	962
Total	179	942	137	4	460	62	297	2	91	508	158	2	100	21	83	1	3047
08:00	48	178	40	0	60	19	54	0	43	175	71	1	26	9	17	0	741
08:15	60	173	54	0	68	25	44	0	19	149	49	1	34	16	28	1	721
08:30	38	166	66	2	54	21	66	1	17	125	17	3	33	15	21	0	645
08:45	44	137	85	2	58	18	77	6	24	124	28	3	52	10	33	0	701
Total	190	654	245	4	240	83	241	7	103	573	165	8	145	50	99	1	2808
*** BREAK ***																	
16:00	29	18	26	0	10	11	16	0	13	24	10	0	33	12	14	0	216
16:15	69	122	124	3	37	33	56	3	46	170	88	4	122	52	43	0	972
16:30	56	124	129	2	35	30	45	0	49	148	82	0	93	25	40	0	858
16:45	64	164	120	2	47	37	45	0	43	218	95	3	129	56	48	0	1071
Total	218	428	399	7	129	111	162	3	151	560	275	7	377	145	145	0	3117
17:00	64	128	130	0	45	45	39	0	57	177	100	1	129	70	53	1	1039
17:15	95	134	123	4	45	37	38	3	52	190	113	0	110	57	55	1	1057
17:30	97	141	122	0	39	26	42	1	52	212	116	1	102	46	55	3	1055
17:45	69	126	125	2	47	39	33	0	60	174	93	3	124	51	39	0	985
Total	325	529	500	6	176	147	152	4	221	753	422	5	465	224	202	5	4136
Grand Total	912	2553	1281	21	1005	403	852	16	566	2394	1020	22	1087	440	529	7	13108
Apprch %	19.1	53.6	26.9	0.4	44.2	17.7	37.4	0.7	14.1	59.8	25.5	0.5	52.7	21.3	25.6	0.3	
Total %	7	19.5	9.8	0.2	7.7	3.1	6.5	0.1	4.3	18.3	7.8	0.2	8.3	3.4	4	0.1	

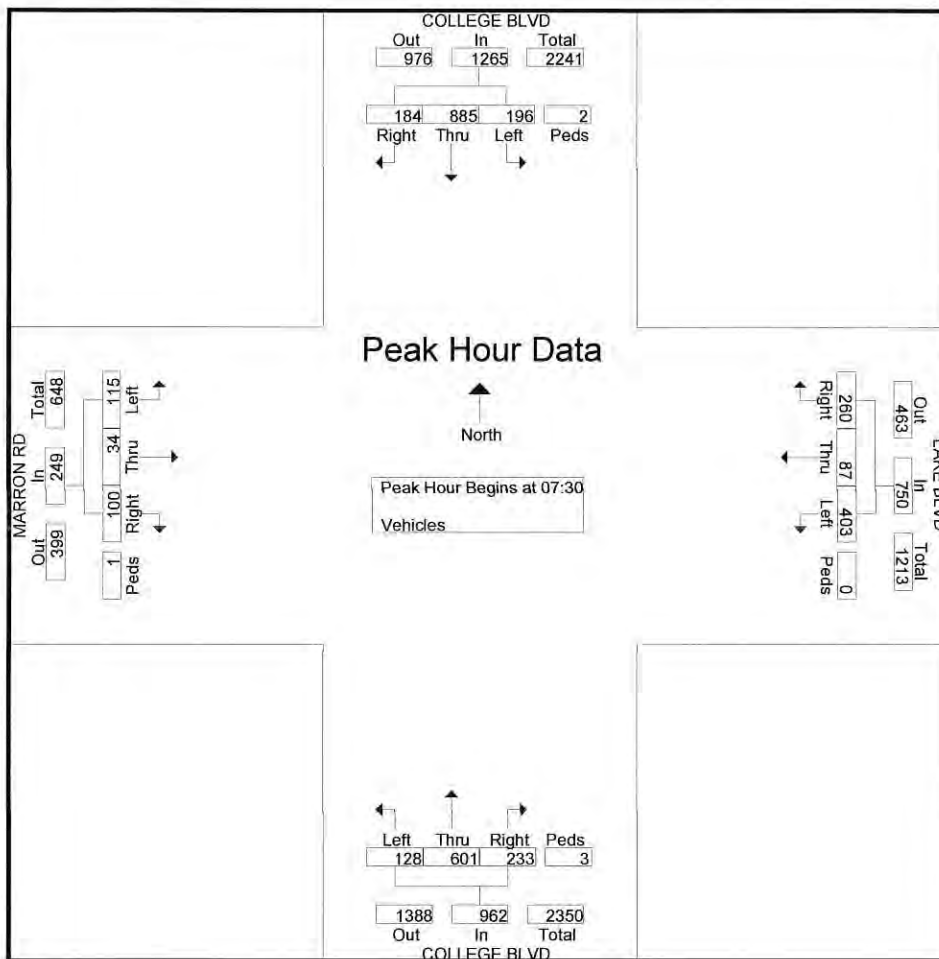
True Count

4401 Twain Ave, Suite 27
San Diego, CA 92120

12-A
EX

File Name : 1109.04.COLLEGE BLVD.MARRON RD
Site Code : 00000000
Start Date : 1/18/2011
Page No : 2

	COLLEGE BLVD Southbound					LAKE BLVD Westbound					COLLEGE BLVD Northbound					MARRON RD Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 11:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30																					
07:30	33	248	47	1	329	135	24	80	0	239	21	127	44	1	193	19	4	24	0	47	808
07:45	55	286	43	1	385	140	19	82	0	241	45	150	69	0	264	36	5	31	0	72	962
08:00	48	178	40	0	266	60	19	54	0	133	43	175	71	1	290	26	9	17	0	52	741
08:15	60	173	54	0	287	68	25	44	0	137	19	149	49	1	218	34	16	28	1	79	721
Total Volume	196	885	184	2	1267	403	87	260	0	750	128	601	233	3	965	115	34	100	1	250	3232
% App. Total	15.5	69.9	14.5	0.2		53.7	11.6	34.7	0		13.3	62.3	24.1	0.3		46	13.6	40	0.4		
PHF	.817	.774	.852	.500	.823	.720	.870	.793	.000	.778	.711	.859	.820	.750	.832	.799	.531	.806	.250	.791	.840



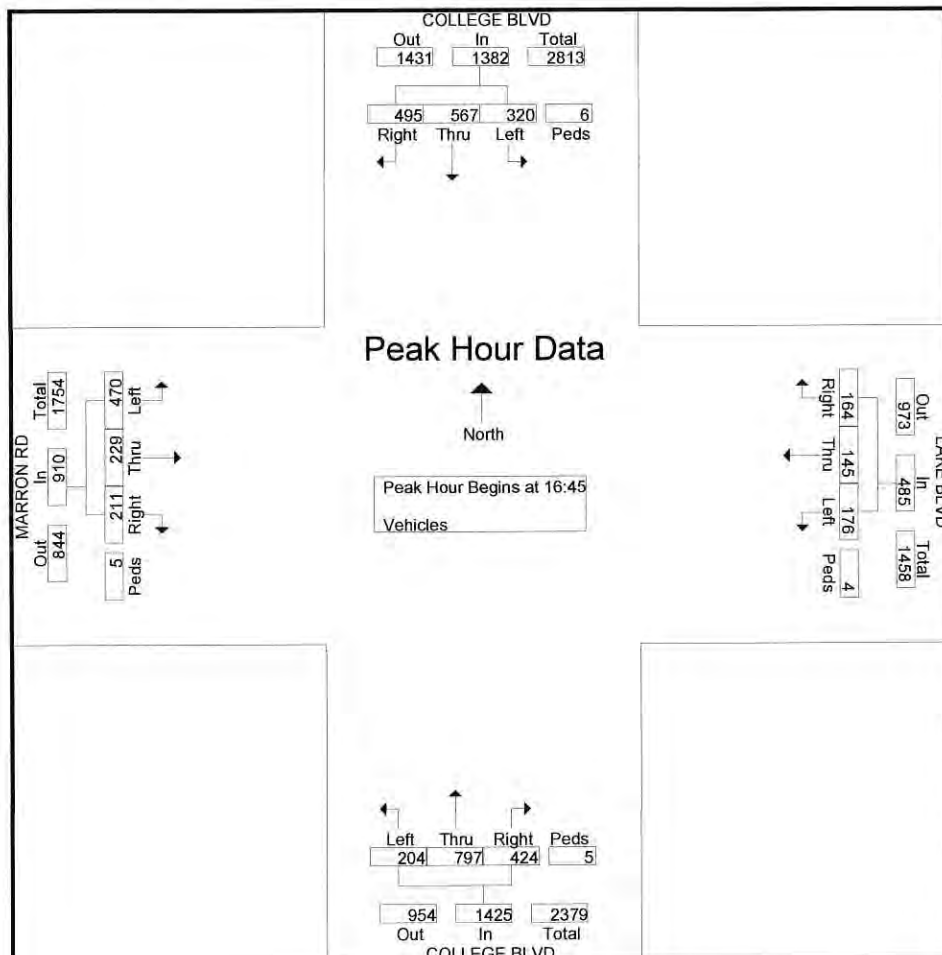
True Count

4401 Twain Ave, Suite 27
San Diego, CA 92120

142
EX

File Name : 1109.04.COLLEGE BLVD.MARRON RD
Site Code : 00000000
Start Date : 1/18/2011
Page No : 3

	COLLEGE BLVD Southbound					LAKE BLVD Westbound					COLLEGE BLVD Northbound					MARRON RD Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:45																					
16:45	64	164	120	2	350	47	37	45	0	129	43	218	95	3	359	129	56	48	0	233	1071
17:00	64	128	130	0	322	45	45	39	0	129	57	177	100	1	335	129	70	53	1	253	1039
17:15	95	134	123	4	356	45	37	38	3	123	52	190	113	0	355	110	57	55	1	223	1057
17:30	97	141	122	0	360	39	26	42	1	108	52	212	116	1	381	102	46	55	3	206	1055
Total Volume	320	567	495	6	1388	176	145	164	4	489	204	797	424	5	1430	470	229	211	5	915	4222
% App. Total	23.1	40.9	35.7	0.4		36	29.7	33.5	0.8		14.3	55.7	29.7	0.3		51.4	25	23.1	0.5		
PHF	.825	.864	.952	.375	.964	.936	.806	.911	.333	.948	.895	.914	.914	.417	.938	.911	.818	.959	.417	.904	.986



15-A
EX

College Boulevard at Carlsbad Village Drive/Peninsula Drive

Lane Configuration for Intersection Capacity Utilization

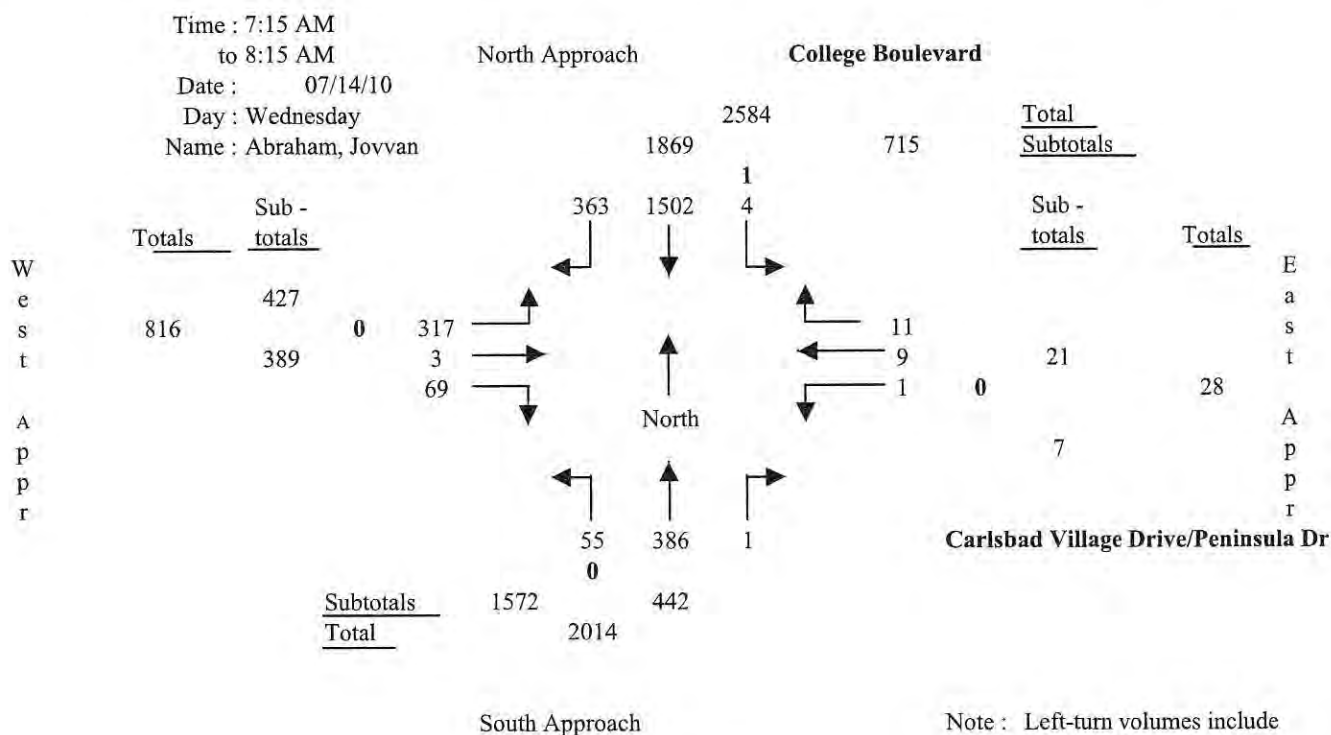
Page 2 of 3

Pk. Hr. Time Period :		South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
7:15 AM to 8:15 AM		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane	Inside	1	1		1			1			1		
Contig -	(left)	2		1		1		1	1			1	1
urations		3		1		1	1			1			
		4											
		5											
		6											
	Outside	7											
	Free-flow												
Lane Settings		1	2	0	1	2	0	2	0	1	1	1	0
Capacity		1800	4000	0	1800	4000	0	3800	0	1800	1800	2000	0
Are the North/South phases split (Y/N)?				N									
Are the East/West phases split (Y/N)?				Y									
Efficiency Lost Factor		0.10											
Hourly Volume		55	386	1	4	1502	363	317	3	69	1	9	11
Adjusted Hourly Volume		55	387	0	4	1865	0	320	0	69	1	20	0
Utilization Factor		0.03	0.10	0.00	0.00	0.47	0.00	0.08	0.00	0.04	0.00	0.01	0.00
Critical Factors		0.03				0.47		0.08				0.01	

ICU Ratio = 0.69 LOS = B

Turning Movements at Intersection of :

College Boulevard and Carlsbad Village Drive/Peninsula Drive



15-P
EX

College Boulevard at Carlsbad Village Drive/Peninsula Drive

Lane Configuration for Intersection Capacity Utilization

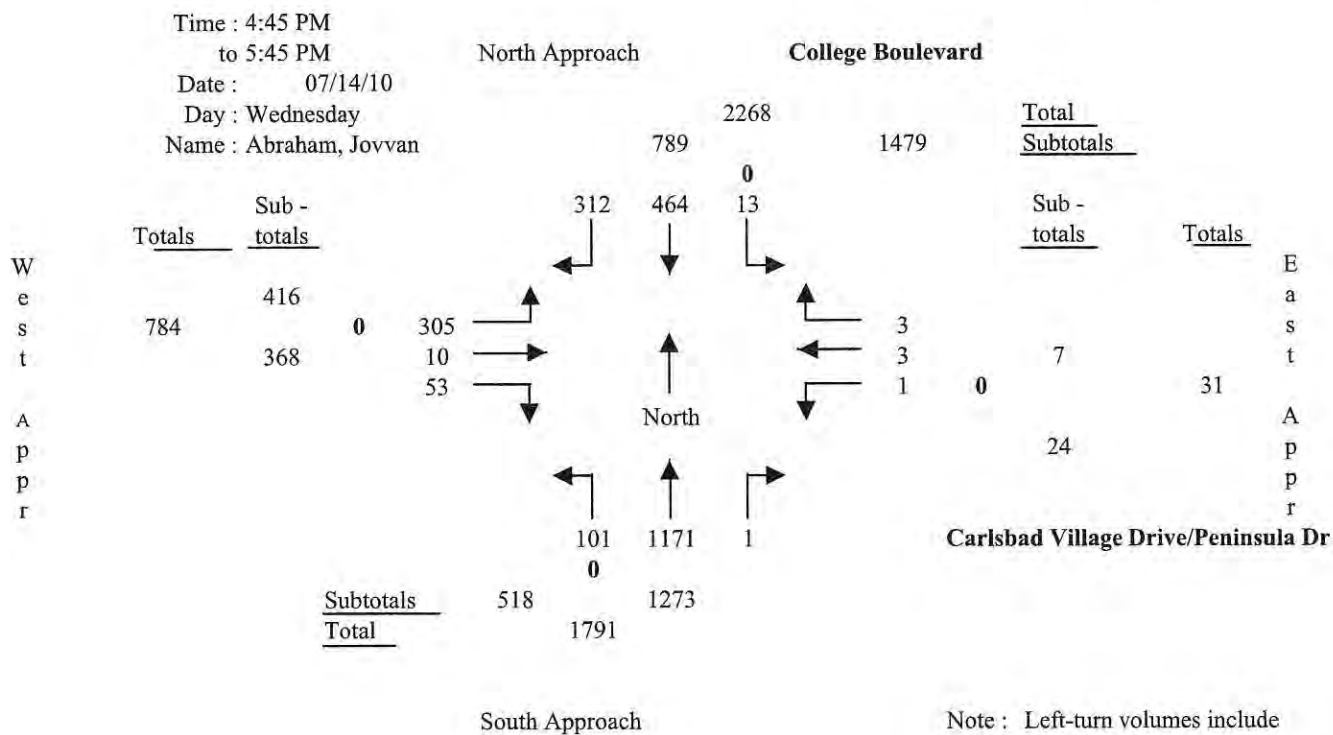
Page 3 of 3

Pk. Hr. Time Period :		South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
4:45 PM to 5:45 PM		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Configurations	Inside	1	1		1			1			1		
	(left)	2		1		1		1	1			1	1
		3		1		1	1			1			
		4											
		5											
		6											
	Outside Free-flow	7											
Lane Settings		1	2	0	1	2	0	2	0	1	1	1	0
Capacity		1800	4000	0	1800	4000	0	3800	0	1800	1800	2000	0
Are the North/South phases split (Y/N)?				N									
Are the East/West phases split (Y/N)?				Y									
Efficiency Lost Factor		0.10											
Hourly Volume		101	1171	1	13	464	312	305	10	53	1	3	3
Adjusted Hourly Volume		101	1172	0	13	776	0	315	0	53	1	6	0
Utilization Factor		0.06	0.29	0.00	0.01	0.19	0.00	0.08	0.00	0.03	0.00	0.00	0.00
Critical Factors			0.29		0.01			0.08				0.00	

ICU Ratio = 0.48 LOS = A

Turning Movements at Intersection of :

College Boulevard and Carlsbad Village Drive/Peninsula Drive



True Count
4401 Twain Ave, Suite 27
San Diego, CA 92120

17-44P
EX

File Name : 1109.08.SR-78 WB RAMPS.VISTA WY
Site Code : 00000000
Start Date : 1/25/2011
Page No : 1

Groups Printed- Vehicles

Start Time	SHOPPING CENTER DRWY Southbound				VISTA WY Westbound				SR-78 WB RAMPS Northbound				VISTA WY Eastbound				Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
07:00	5	13	6	1	42	42	2	0	145	21	19	0	13	64	86	0	459
07:15	10	20	13	1	41	52	12	0	148	8	34	0	21	74	74	0	508
07:30	12	12	4	1	73	53	10	0	169	11	49	0	19	122	60	0	595
07:45	14	18	8	1	54	57	7	0	181	14	51	0	17	144	67	0	633
Total	41	63	31	4	210	204	31	0	643	54	153	0	70	404	287	0	2195
08:00	5	18	8	2	51	53	11	0	161	20	42	0	20	124	73	0	588
08:15	12	20	15	2	29	55	9	0	118	16	34	0	22	129	69	1	531
08:30	17	15	8	1	33	53	13	0	148	11	35	0	21	93	81	0	529
08:45	13	9	15	0	33	62	5	0	190	22	32	0	27	124	103	0	635
Total	47	62	46	5	146	223	38	0	617	69	143	0	90	470	326	1	2283
*** BREAK ***																	
16:00	22	17	15	0	65	115	11	0	178	22	32	0	22	116	71	0	686
16:15	14	27	12	2	67	109	10	0	186	15	30	0	18	118	74	0	682
16:30	11	22	15	0	79	98	9	0	163	12	29	1	23	123	82	0	667
16:45	18	17	14	2	82	88	3	0	201	13	24	0	23	119	76	0	680
Total	65	83	56	4	293	410	33	0	728	62	115	1	86	476	303	0	2715
17:00	19	15	10	1	84	119	8	0	178	13	21	0	15	117	83	0	683
17:15	9	6	16	0	60	73	9	0	201	12	6	1	13	118	75	0	599
17:30	22	7	16	0	73	89	11	0	210	8	23	0	14	107	94	0	674
17:45	11	5	11	1	50	58	5	0	219	17	24	1	15	112	89	0	618
Total	61	33	53	2	267	339	33	0	808	50	74	2	57	454	341	0	2574
Grand Total	214	241	186	15	916	1176	135	0	2796	235	485	3	303	1804	1257	1	9767
Apprch %	32.6	36.7	28.4	2.3	41.1	52.8	6.1	0	79.5	6.7	13.8	0.1	9	53.6	37.4	0	
Total %	2.2	2.5	1.9	0.2	9.4	12	1.4	0	28.6	2.4	5	0	3.1	18.5	12.9	0	

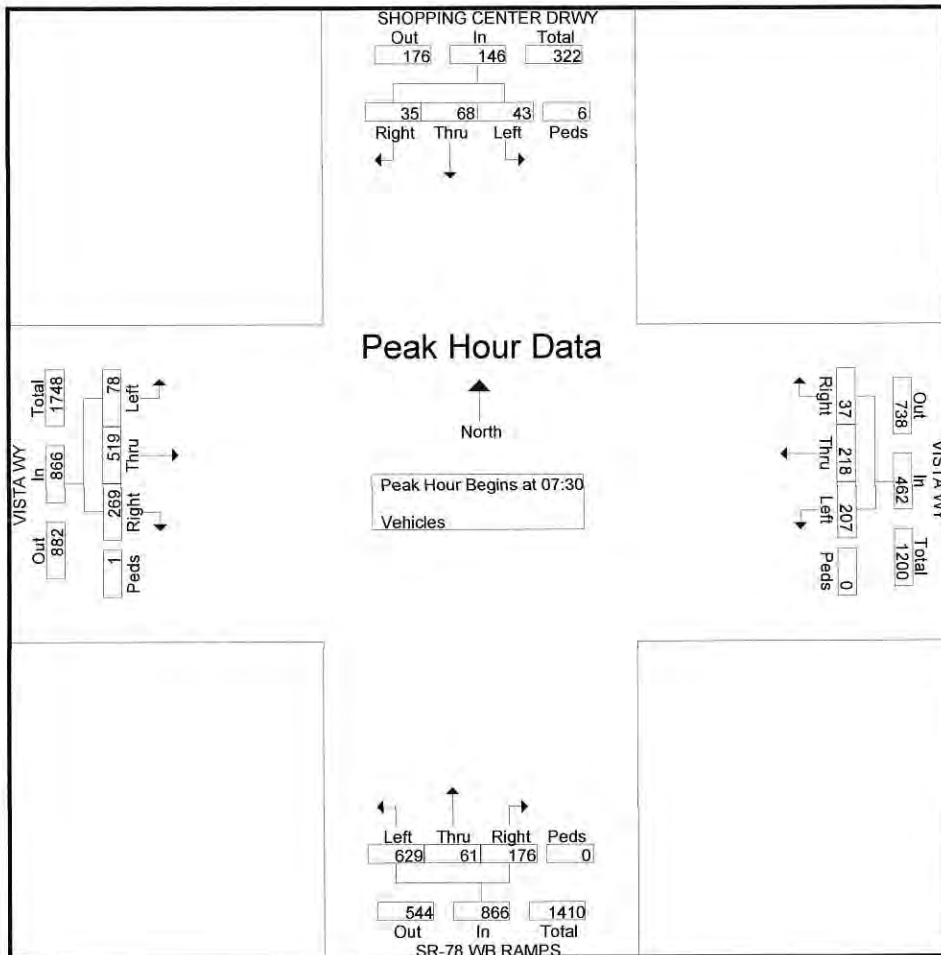
True Count

4401 Twain Ave, Suite 27
San Diego, CA 92120

17-A
EX

File Name : 1109.08.SR-78 WB RAMPS.VISTA WY
Site Code : 00000000
Start Date : 1/25/2011
Page No : 2

	SHOPPING CENTER DRWY Southbound					VISTA WY Westbound					SR-78 WB RAMPS Northbound					VISTA WY Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 11:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30																					
07:30	12	12	4	1	29	73	53	10	0	136	169	11	49	0	229	19	122	60	0	201	595
07:45	14	18	8	1	41	54	57	7	0	118	181	14	51	0	246	17	144	67	0	228	633
08:00	5	18	8	2	33	51	53	11	0	115	161	20	42	0	223	20	124	73	0	217	588
08:15	12	20	15	2	49	29	55	9	0	93	118	16	34	0	168	22	129	69	1	221	531
Total Volume	43	68	35	6	152	207	218	37	0	462	629	61	176	0	866	78	519	269	1	867	2347
% App. Total	28.3	44.7	23	3.9		44.8	47.2	8	0		72.6	7	20.3	0		9	59.9	31	0.1		
PHF	.768	.850	.583	.750	.776	.709	.956	.841	.000	.849	.869	.763	.863	.000	.880	.886	.901	.921	.250	.951	.927



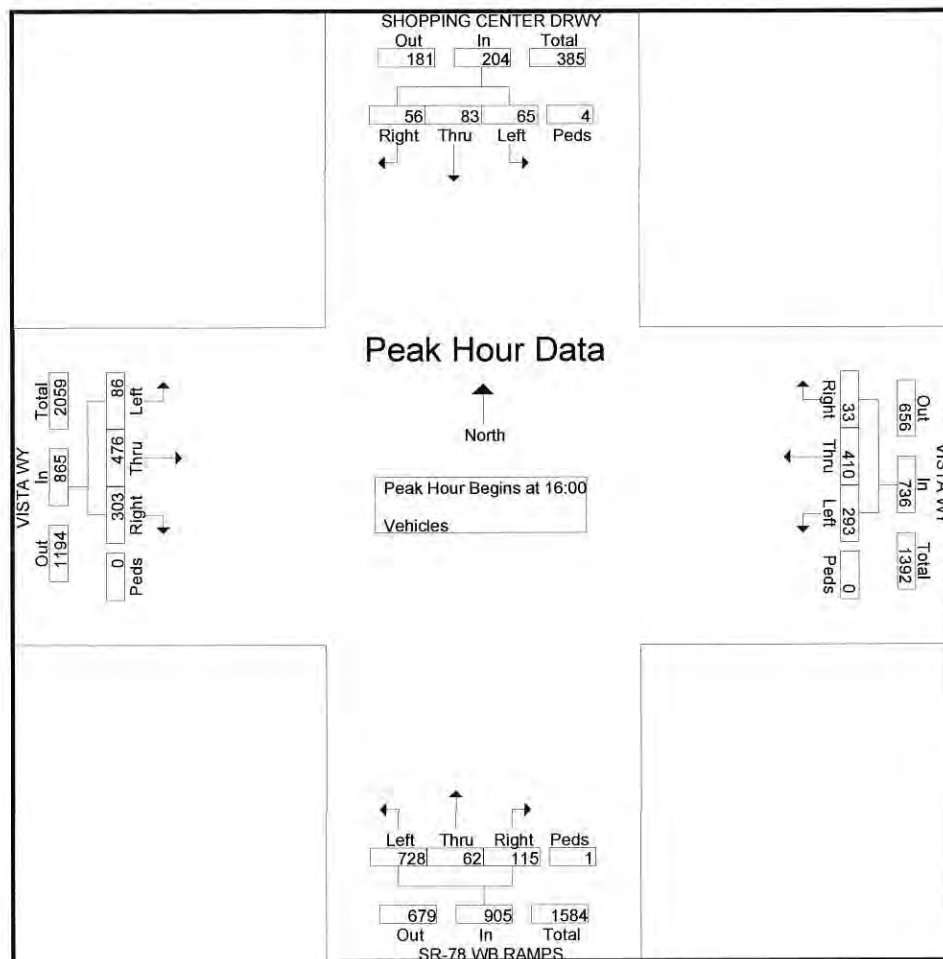
True Count

4401 Twain Ave, Suite 27
San Diego, CA 92120

17-P
EX

File Name : 1109.08.SR-78 WB RAMPS.VISTA WY
Site Code : 00000000
Start Date : 1/25/2011
Page No : 3

	SHOPPING CENTER DRWY Southbound					VISTA WY Westbound					SR-78 WB RAMPS Northbound					VISTA WY Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:00																					
16:00	22	17	15	0	54	65	115	11	0	191	178	22	32	0	232	22	116	71	0	209	686
16:15	14	27	12	2	55	67	109	10	0	186	186	15	30	0	231	18	118	74	0	210	682
16:30	11	22	15	0	48	79	98	9	0	186	163	12	29	1	205	23	123	82	0	228	667
16:45	18	17	14	2	51	82	88	3	0	173	201	13	24	0	238	23	119	76	0	218	680
Total Volume	65	83	56	4	208	293	410	33	0	736	728	62	115	1	906	86	476	303	0	865	2715
% App. Total	31.2	39.9	26.9	1.9		39.8	55.7	4.5	0		80.4	6.8	12.7	0.1		9.9	55	35	0		
PHF	.739	.769	.933	.500	.945	.893	.891	.750	.000	.963	.905	.705	.898	.250	.952	.935	.967	.924	.000	.948	.989



True Count
4401 Twain Ave, Suite 27
San Diego, CA 92120

1814P
EX

File Name : 1109.09.SR-78 EB RAMPS.PLAZA DR
Site Code : 00000000
Start Date : 1/25/2011
Page No : 1

Groups Printed- Vehicles

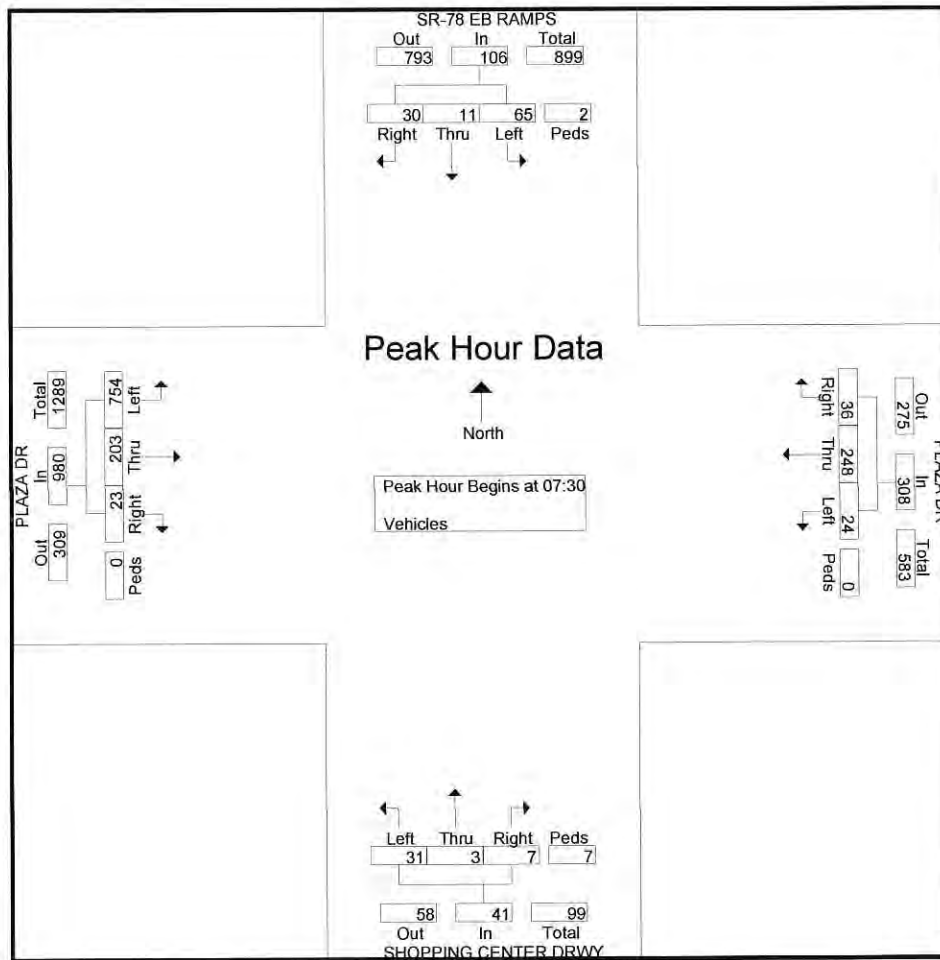
Start Time	SR-78 EB RAMPS Southbound				PLAZA DR Westbound				SHOPPING CENTER DRWY Northbound				PLAZA DR Eastbound				Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
07:00	8	2	4	1	6	51	3	0	6	2	0	0	152	16	6	0	257
07:15	23	6	5	2	1	53	11	0	3	1	0	1	202	25	2	0	335
07:30	12	2	7	1	5	60	12	0	6	0	1	1	209	44	4	0	364
07:45	18	4	6	1	7	60	7	0	11	1	2	3	186	45	4	0	355
Total	61	14	22	5	19	224	33	0	26	4	3	5	749	130	16	0	1311
08:00	21	3	12	0	5	60	11	0	4	1	2	2	187	63	9	0	380
08:15	14	2	5	0	7	68	6	0	10	1	2	1	172	51	6	0	345
08:30	16	1	6	2	4	74	8	0	4	2	3	3	148	37	3	0	311
08:45	14	4	7	1	11	73	7	0	14	2	2	2	152	52	7	0	348
Total	65	10	30	3	27	275	32	0	32	6	9	8	659	203	25	0	1384
*** BREAK ***																	
16:00	36	8	11	2	28	91	13	0	27	11	18	4	213	78	19	4	563
16:15	25	13	13	5	22	71	10	0	41	13	13	3	182	81	17	0	509
16:30	36	6	11	3	17	101	15	2	37	8	11	9	191	75	10	9	541
16:45	26	11	4	1	29	89	21	0	40	12	12	1	205	85	9	0	545
Total	123	38	39	11	96	352	59	2	145	44	54	17	791	319	55	13	2158
17:00	18	13	4	1	21	106	12	0	38	9	7	3	188	76	14	2	512
17:15	30	9	11	0	20	117	23	0	46	8	12	6	172	67	12	3	536
17:30	21	12	9	0	18	96	12	0	41	12	15	0	185	71	22	1	515
17:45	19	8	11	0	25	76	20	0	39	20	13	0	170	70	9	0	480
Total	88	42	35	1	84	395	67	0	164	49	47	9	715	284	57	6	2043
Grand Total	337	104	126	20	226	1246	191	2	367	103	113	39	2914	936	153	19	6896
Apprch %	57.4	17.7	21.5	3.4	13.6	74.8	11.5	0.1	59	16.6	18.2	6.3	72.5	23.3	3.8	0.5	
Total %	4.9	1.5	1.8	0.3	3.3	18.1	2.8	0	5.3	1.5	1.6	0.6	42.3	13.6	2.2	0.3	

True Count
4401 Twain Ave, Suite 27
San Diego, CA 92120

18A
EX

File Name : 1109.09.SR-78 EB RAMPS.PLAZA DR
Site Code : 00000000
Start Date : 1/25/2011
Page No : 2

	SR-78 EB RAMPS Southbound					PLAZA DR Westbound					SHOPPING CENTER DRWY Northbound					PLAZA DR Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 11:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30																					
07:30	12	2	7	1	22	5	60	12	0	77	6	0	1	1	8	209	44	4	0	257	364
07:45	18	4	6	1	29	7	60	7	0	74	11	1	2	3	17	186	45	4	0	235	355
08:00	21	3	12	0	36	5	60	11	0	76	4	1	2	2	9	187	63	9	0	259	380
08:15	14	2	5	0	21	7	68	6	0	81	10	1	2	1	14	172	51	6	0	229	345
Total Volume	65	11	30	2	108	24	248	36	0	308	31	3	7	7	48	754	203	23	0	980	1444
% App. Total	60.2	10.2	27.8	1.9		7.8	80.5	11.7	0		64.6	6.2	14.6	14.6		76.9	20.7	2.3	0		
PHF	.774	.688	.625	.500	.750	.857	.912	.750	.000	.951	.705	.750	.875	.583	.706	.902	.806	.639	.000	.946	.950



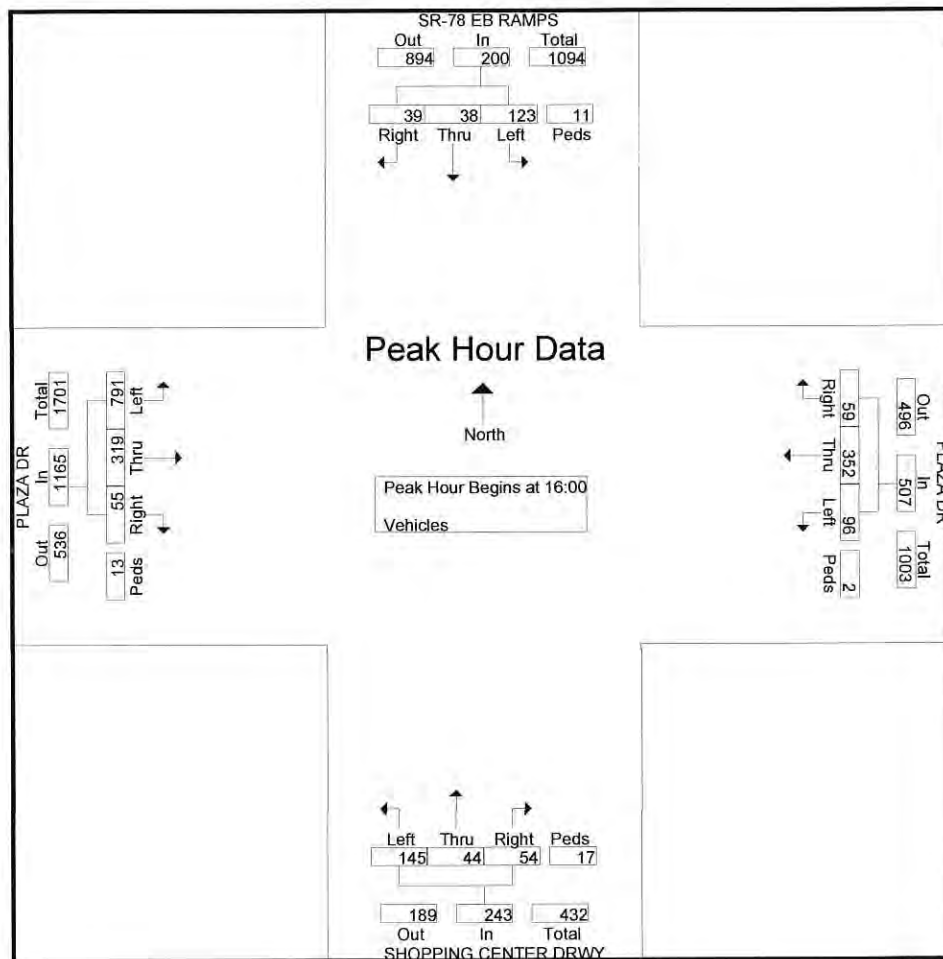
True Count

4401 Twain Ave, Suite 27
San Diego, CA 92120

189
EX

File Name : 1109.09.SR-78 EB RAMPS.PLAZA DR
Site Code : 00000000
Start Date : 1/25/2011
Page No : 3

	SR-78 EB RAMPS Southbound					PLAZA DR Westbound					SHOPPING CENTER DRWY Northbound					PLAZA DR Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:00																					
16:00	36	8	11	2	57	28	91	13	0	132	27	11	18	4	60	213	78	19	4	314	563
16:15	25	13	13	5	56	22	71	10	0	103	41	13	13	3	70	182	81	17	0	280	509
16:30	36	6	11	3	56	17	101	15	2	135	37	8	11	9	65	191	75	10	9	285	541
16:45	26	11	4	1	42	29	89	21	0	139	40	12	12	1	65	205	85	9	0	299	545
Total Volume	123	38	39	11	211	96	352	59	2	509	145	44	54	17	260	791	319	55	13	1178	2158
% App. Total	58.3	18	18.5	5.2		18.9	69.2	11.6	0.4		55.8	16.9	20.8	6.5		67.1	27.1	4.7	1.1		
PHF	.854	.731	.750	.550	.925	.828	.871	.702	.250	.915	.884	.846	.750	.472	.929	.928	.938	.724	.361	.938	.958



True Count
4401 Twain Ave, Suite 27
San Diego, CA 92120

19-478
EX

File Name : 1109.11.THUNDER DR.LAVE BLVD
Site Code : 00000000
Start Date : 1/25/2011
Page No : 1

Groups Printed- Vehicles

Start Time	THUNDER DR Southbound				LAKE BLVD Westbound				THUNDER DR Northbound				LAKE BLVD Eastbound				Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
07:00	7	0	46	0	0	104	12	0	1	0	0	0	11	65	0	0	246
07:15	14	0	42	0	0	136	19	2	0	1	0	0	23	62	0	1	300
07:30	13	1	61	0	1	150	21	5	0	0	1	1	23	52	0	2	331
07:45	9	1	53	0	1	140	24	4	0	1	1	0	49	64	2	0	349
Total	43	2	202	0	2	530	76	11	1	2	2	1	106	243	2	3	1226
08:00	17	0	35	0	0	80	20	0	0	0	0	0	42	68	0	0	262
08:15	18	3	32	0	1	84	21	1	1	0	0	1	24	49	0	2	237
08:30	14	0	28	0	1	109	18	1	0	1	1	1	21	49	1	2	247
08:45	8	1	21	2	1	131	27	1	1	2	0	0	13	39	0	0	247
Total	57	4	116	2	3	404	86	3	2	3	1	2	100	205	1	4	993
*** BREAK ***																	
16:00	36	2	24	0	0	66	28	3	2	1	1	3	53	120	0	1	340
16:15	35	0	29	1	1	82	21	1	1	1	1	0	51	121	0	0	345
16:30	30	0	31	2	0	80	16	3	1	0	0	3	65	135	1	4	371
16:45	27	0	28	0	0	64	35	0	3	0	0	0	61	134	1	1	354
Total	128	2	112	3	1	292	100	7	7	2	2	6	230	510	2	6	1410
17:00	31	0	31	0	0	64	27	1	0	0	0	1	61	128	1	1	346
17:15	32	1	30	0	1	66	28	0	1	2	0	0	78	148	1	3	391
17:30	31	2	35	0	2	91	23	1	0	0	2	2	54	126	1	0	370
17:45	30	0	37	1	2	67	21	4	0	0	4	0	59	132	2	0	359
Total	124	3	133	1	5	288	99	6	1	2	6	3	252	534	5	4	1466
Grand Total	352	11	563	6	11	1514	361	27	11	9	11	12	688	1492	10	17	5095
Apprch %	37.8	1.2	60.4	0.6	0.6	79.1	18.9	1.4	25.6	20.9	25.6	27.9	31.2	67.6	0.5	0.8	
Total %	6.9	0.2	11.1	0.1	0.2	29.7	7.1	0.5	0.2	0.2	0.2	0.2	13.5	29.3	0.2	0.3	

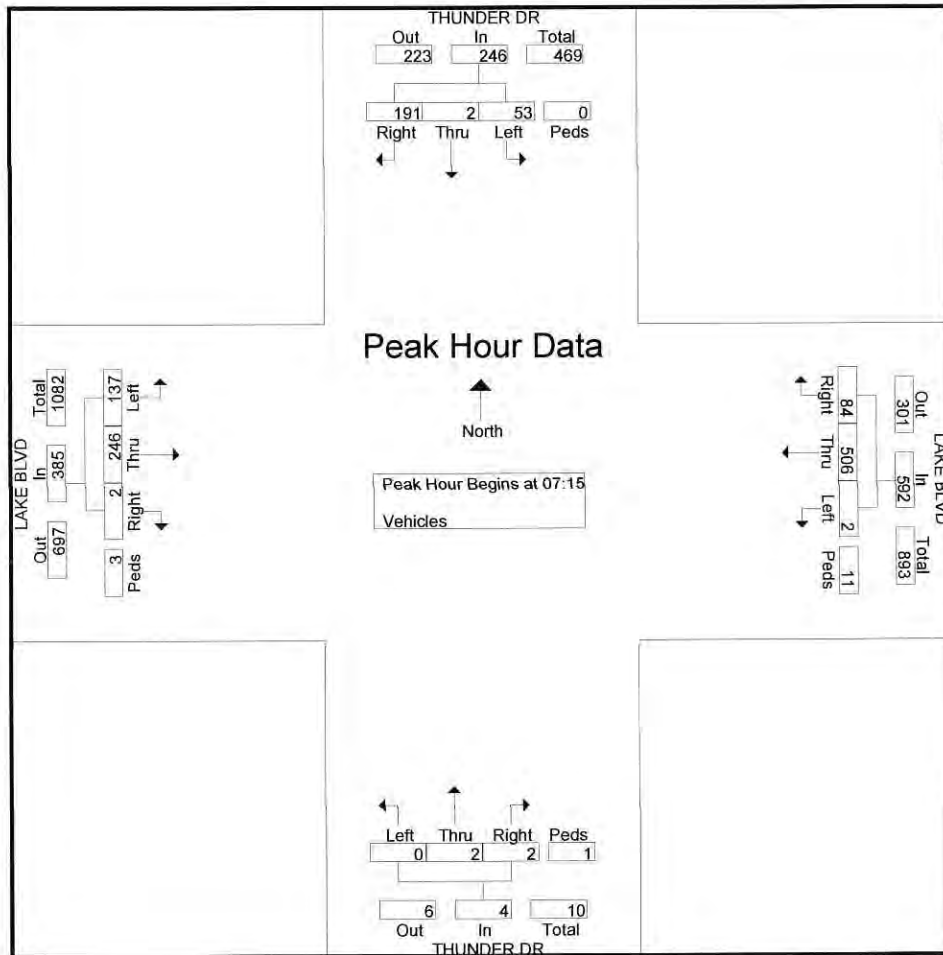
True Count

4401 Twain Ave, Suite 27
San Diego, CA 92120

19-A
EX

File Name : 1109.11.THUNDER DR.LAVE BLVD
Site Code : 00000000
Start Date : 1/25/2011
Page No : 2

	THUNDER DR Southbound					LAKE BLVD Westbound					THUNDER DR Northbound					LAKE BLVD Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 11:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15																					
07:15	14	0	42	0	56	0	136	19	2	157	0	1	0	0	1	23	62	0	1	86	300
07:30	13	1	61	0	75	1	150	21	5	177	0	0	1	1	2	23	52	0	2	77	331
07:45	9	1	53	0	63	1	140	24	4	169	0	1	1	0	2	49	64	2	0	115	349
08:00	17	0	35	0	52	0	80	20	0	100	0	0	0	0	0	42	68	0	0	110	262
Total Volume	53	2	191	0	246	2	506	84	11	603	0	2	2	1	5	137	246	2	3	388	1242
% App. Total	21.5	0.8	77.6	0		0.3	83.9	13.9	1.8		0	40	40	20		35.3	63.4	0.5	0.8		
PHF	.779	.500	.783	.000	.820	.500	.843	.875	.550	.852	.000	.500	.500	.250	.625	.699	.904	.250	.375	.843	.890

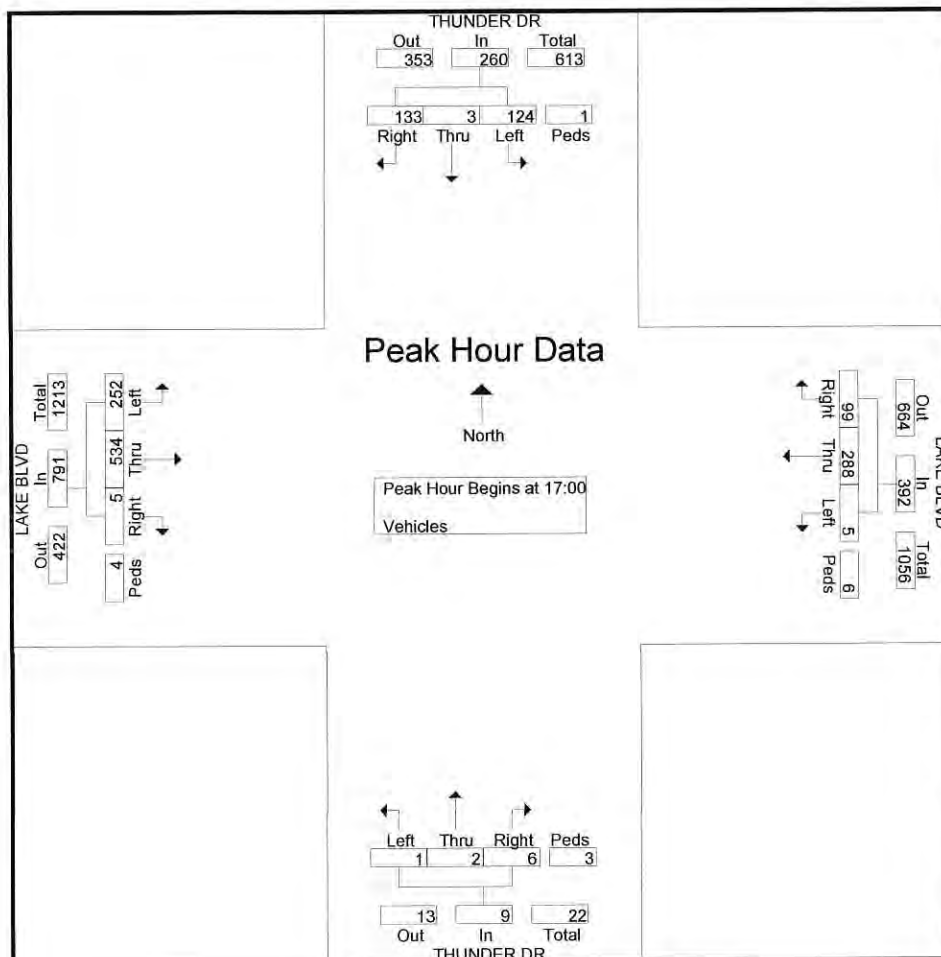


True Count
4401 Twain Ave, Suite 27
San Diego, CA 92120

19-P
EX

File Name : 1109.11.THUNDER DR.LAVE BLVD
Site Code : 00000000
Start Date : 1/25/2011
Page No : 3

	THUNDER DR Southbound					LAKE BLVD Westbound					THUNDER DR Northbound					LAKE BLVD Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 17:00																					
17:00	31	0	31	0	62	0	64	27	1	92	0	0	0	1	1	61	128	1	1	191	346
17:15	32	1	30	0	63	1	66	28	0	95	1	2	0	0	3	78	148	1	3	230	391
17:30	31	2	35	0	68	2	91	23	1	117	0	0	2	2	4	54	126	1	0	181	370
17:45	30	0	37	1	68	2	67	21	4	94	0	0	4	0	4	59	132	2	0	193	359
Total Volume	124	3	133	1	261	5	288	99	6	398	1	2	6	3	12	252	534	5	4	795	1466
% App. Total	47.5	1.1	51	0.4		1.3	72.4	24.9	1.5		8.3	16.7	50	25		31.7	67.2	0.6	0.5		
PHF	.969	.375	.899	.250	.960	.625	.791	.884	.375	.850	.250	.250	.375	.375	.750	.808	.902	.625	.333	.864	.937



Transportation Studies, Inc.
2640 Walnut Avenue, Suite H
Tustin, CA. 92780

20
AM+PM
EX

City: OCEANSIDE
N-S Direction: COLLEGE BOULEVARD
E-W Direction: BARNARD DR / WARING RD

File Name : H1204001
Site Code : 00005062
Start Date : 4/5/2012
Page No : 1

Groups Printed- Turning Movements

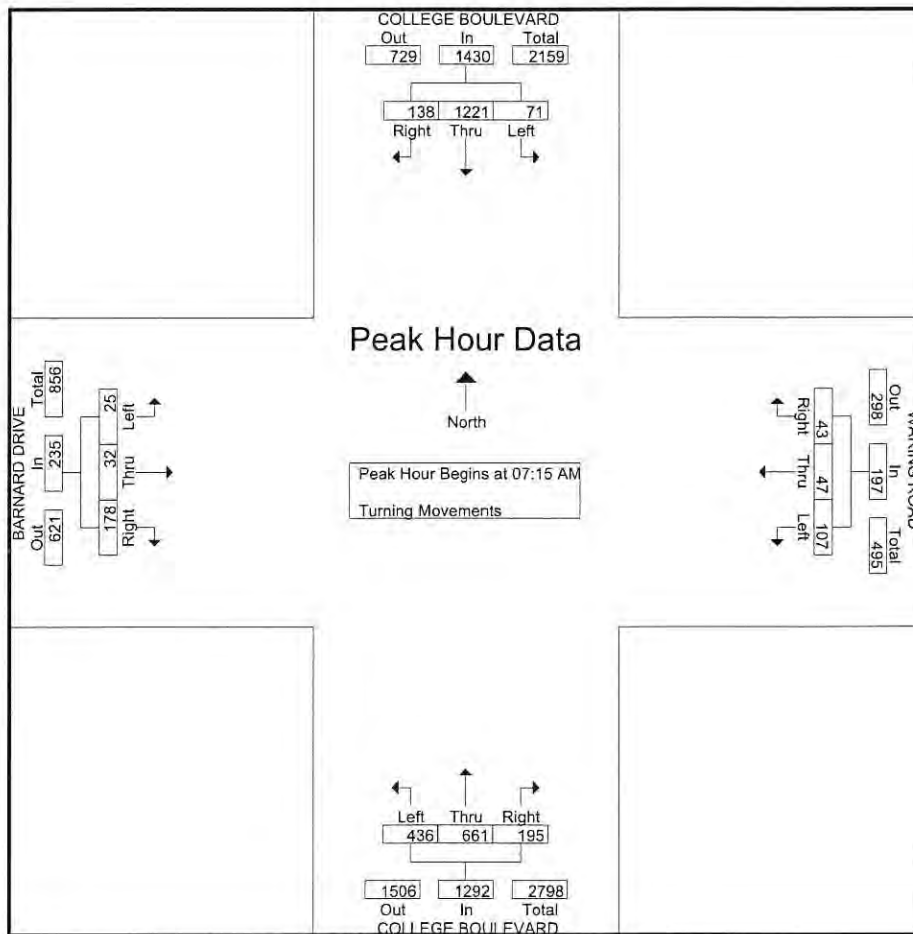
	COLLEGE BOULEVARD Southbound			WARING ROAD Westbound			COLLEGE BOULEVARD Northbound			BARNARD DRIVE Eastbound			Int. Total
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	
07:00 AM	31	350	9	9	2	27	23	121	85	39	4	8	708
07:15 AM	32	297	24	6	9	30	41	162	87	53	6	4	751
07:30 AM	40	333	19	19	10	27	48	167	134	50	6	5	858
07:45 AM	43	279	14	9	20	25	53	165	149	42	14	8	821
Total	146	1259	66	43	41	109	165	615	455	184	30	25	3138
08:00 AM	23	312	14	9	8	25	53	167	66	33	6	8	724
08:15 AM	17	263	21	12	11	26	43	142	71	49	4	9	668
08:30 AM	29	288	38	18	9	27	50	150	85	39	8	9	750
08:45 AM	28	247	24	14	13	33	37	161	102	48	7	14	728
Total	97	1110	97	53	41	111	183	620	324	169	25	40	2870
*** BREAK ***													
04:00 PM	11	217	24	25	10	39	51	281	63	118	17	28	884
04:15 PM	9	272	21	25	7	20	41	322	73	63	12	16	881
04:30 PM	16	192	11	21	18	35	42	300	96	106	12	27	876
04:45 PM	29	206	15	20	10	29	37	322	106	85	16	29	904
Total	65	887	71	91	45	123	171	1225	338	372	57	100	3545
05:00 PM	18	206	17	39	18	43	52	294	92	125	16	34	954
05:15 PM	19	219	14	34	14	29	49	306	90	81	14	17	886
05:30 PM	12	234	22	23	9	28	26	344	88	95	8	23	912
05:45 PM	26	238	7	20	10	17	50	314	81	65	8	16	852
Total	75	897	60	116	51	117	177	1258	351	366	46	90	3604
Grand Total	383	4153	294	303	178	460	696	3718	1468	1091	158	255	13157
Apprch %	7.9	86	6.1	32.2	18.9	48.9	11.8	63.2	25	72.5	10.5	17	
Total %	2.9	31.6	2.2	2.3	1.4	3.5	5.3	28.3	11.2	8.3	1.2	1.9	

20 AM
EX

City: OCEANSIDE
N-S Direction: COLLEGE BOULEVARD
E-W Direction: BARNARD DR / WARING RD

File Name : H1204001
Site Code : 00005062
Start Date : 4/5/2012
Page No : 2

	COLLEGE BOULEVARD Southbound				WARING ROAD Westbound				COLLEGE BOULEVARD Northbound				BARNARD DRIVE Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	32	297	24	353	6	9	30	45	41	162	87	290	53	6	4	63	751
07:30 AM	40	333	19	392	19	10	27	56	48	167	134	349	50	6	5	61	858
07:45 AM	43	279	14	336	9	20	25	54	53	165	149	367	42	14	8	64	821
08:00 AM	23	312	14	349	9	8	25	42	53	167	66	286	33	6	8	47	724
Total Volume	138	1221	71	1430	43	47	107	197	195	661	436	1292	178	32	25	235	3154
% App. Total	9.7	85.4	5		21.8	23.9	54.3		15.1	51.2	33.7		75.7	13.6	10.6		
PHF	.802	.917	.740	.912	.566	.588	.892	.879	.920	.990	.732	.880	.840	.571	.781	.918	.919

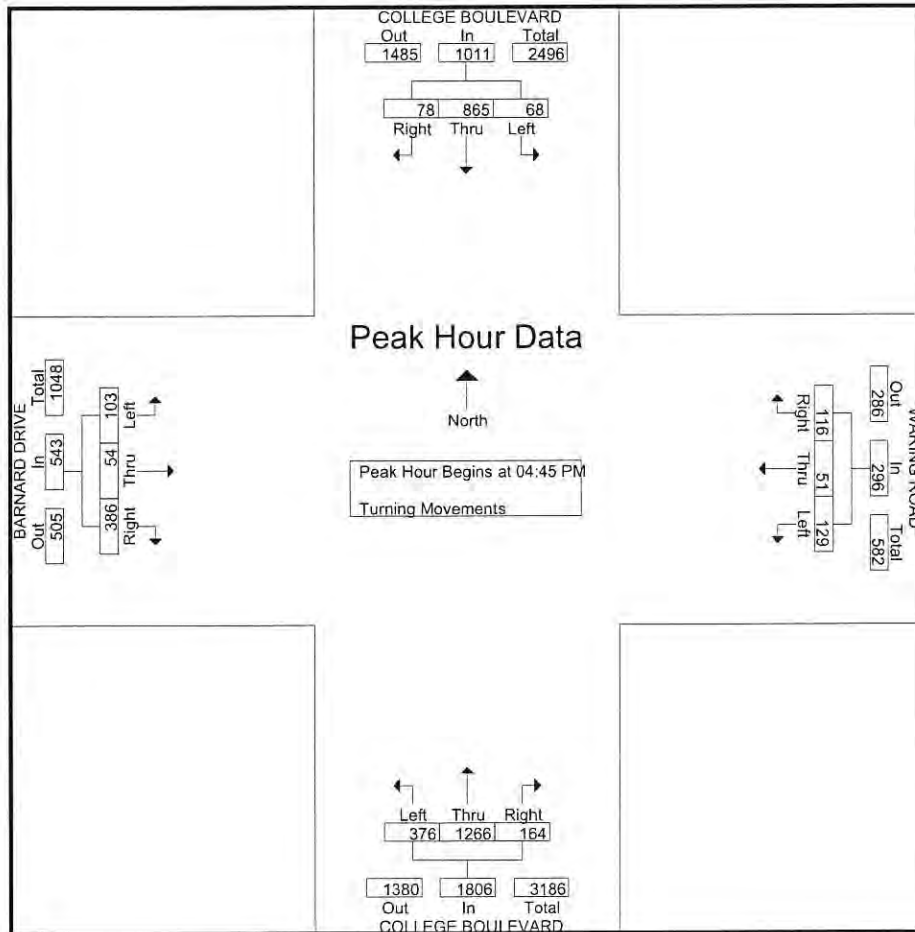


20
PM
EX

City: OCEANSIDE
N-S Direction: COLLEGE BOULEVARD
E-W Direction: BARNARD DR / WARING RD

File Name : H1204001
Site Code : 00005062
Start Date : 4/5/2012
Page No : 3

	COLLEGE BOULEVARD Southbound				WARING ROAD Westbound				COLLEGE BOULEVARD Northbound				BARNARD DRIVE Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	29	206	15	250	20	10	29	59	37	322	106	465	85	16	29	130	904
05:00 PM	18	206	17	241	39	18	43	100	52	294	92	438	125	16	34	175	954
05:15 PM	19	219	14	252	34	14	29	77	49	306	90	445	81	14	17	112	886
05:30 PM	12	234	22	268	23	9	28	60	26	344	88	458	95	8	23	126	912
Total Volume	78	865	68	1011	116	51	129	296	164	1266	376	1806	386	54	103	543	3656
% App. Total	7.7	85.6	6.7		39.2	17.2	43.6		9.1	70.1	20.8		71.1	9.9	19		
PHF	.672	.924	.773	.943	.744	.708	.750	.740	.788	.920	.887	.971	.772	.844	.757	.776	.958



1-M
EX

SHORT REPORT													
General Information						Site Information							
Analyst	USAI					Intersection	EL CAMINO REAL@ VISTA WAY						
Agency or Co.	USAI					Area Type	All other areas						
Date Performed	08/22/12					Jurisdiction	OCEANSIDE-INT.#1						
Time Period	AM PEAK					Analysis Year	EXISTING/NO PROJECT						
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	1	2	1	2	2	0	2	3	0	2	3	0	
Lane group	L	T	R	L	TR		L	TR		L	TR		
Volume (vph)	22	45	65	394	107	68	106	811	271	77	1643	57	
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2	
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0		
Ext. eff. green	3.0	2.0	1.2	2.0	2.0		1.2	5.0		0.8	5.8		
Arrival type	3	3	3	3	3		5	5		5	5		
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0		
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5	10	0	
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0	0	0	0		0	0		0	0		
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0		
Phasing	Excl. Left	WB Only	Thru & RT	04			Excl. Left	Thru & RT	07			08	
Timing	G = 10.3	G = 13.5	G = 17.8	G =			G = 15.5	G = 48.6	G =				
	Y = 5.2	Y = 5.6	Y = 5.6	Y =			Y = 5.2	Y = 6.3	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 133.6							
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	24	49	71	428	190		115	1177		84	1848		
Lane group cap.	136	446	426	720	888		352	1840		342	1941		
v/c ratio	0.18	0.11	0.17	0.59	0.21		0.33	0.64		0.25	0.95		
Green ratio	0.08	0.13	0.28	0.21	0.27		0.10	0.38		0.10	0.38		
Unif. delay d1	57.7	51.8	36.5	47.7	37.9		55.7	34.0		55.5	39.9		
Delay factor k	0.11	0.11	0.11	0.18	0.11		0.11	0.22		0.11	0.46		
Increm. delay d2	0.6	0.1	0.2	1.3	0.1		0.5	0.8		0.4	11.2		
PF factor	1.000	1.000	1.000	1.000	1.000		0.924	0.594		0.926	0.583		
Control delay	58.3	51.9	36.7	49.0	38.0		52.0	21.0		51.8	34.5		
Lane group LOS	E	D	D	D	D		D	C		D	C		
Apprch. delay	45.5			45.6			23.7			35.2			
Approach LOS	D			D			C			D			
Intersec. delay	33.5			Intersection LOS						C			

SHORT REPORT													
General Information							Site Information						
Analyst	USAI						Intersection						EL CAMINO REAL@ VISTA WAY
Agency or Co.	USAI						Area Type						All other areas
Date Performed	08/22/12						Jurisdiction						OCEANSIDE-INT.#1
Time Period	PM PEAK						Analysis Year						EXISTING/NO PROJECT
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	1	2	1	2	2	0	2	3	0	2	3	0	
Lane group	L	T	R	L	TR		L	TR		L	TR		
Volume (vph)	177	308	354	344	205	131	426	1688	522	164	1209	162	
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2	
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0		
Ext. eff. green	3.0	2.0	1.2	2.0	2.0		1.2	5.0		0.8	5.8		
Arrival type	3	3	3	3	3		5	5		5	5		
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0		
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5	10	0	
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0	0	0	0		0	0		0	0		
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0		
Phasing	Excl. Left	Thru & RT	03		04		Excl. Left	NB Only	Thru & RT	08			
Timing	G = 16.0	G = 22.3	G =		G =		G = 12.2	G = 12.8	G = 41.7	G =			
	Y = 5.2	Y = 5.6	Y =		Y =		Y = 5.2	Y = 6.3	Y = 6.3	Y =			
Duration of Analysis (hrs) = 0.25									Cycle Length C = 133.6				
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	192	335	385	374	365		463	2402		178	1490		
Lane group cap.	212	566	650	386	525		731	2290		257	1655		
v/c ratio	0.91	0.59	0.59	0.97	0.70		0.63	1.05		0.69	0.90		
Green ratio	0.12	0.16	0.42	0.11	0.16		0.21	0.47		0.07	0.33		
Unif. delay d1	58.1	52.1	29.8	59.1	53.1		47.9	35.4		60.3	42.4		
Delay factor k	0.43	0.18	0.18	0.48	0.26		0.21	0.50		0.26	0.42		
Increm. delay d2	37.1	1.7	1.5	37.5	4.0		1.8	33.2		7.8	7.2		
PF factor	1.000	1.000	1.000	1.000	1.000		0.820	0.409		0.946	0.667		
Control delay	95.2	53.8	31.3	96.6	57.1		41.1	47.7		64.8	35.5		
Lane group LOS	F	D	C	F	E		D	D		E	D		
Apprch. delay	53.0			77.1			46.6			38.6			
Approach LOS	D			E			D			D			
Intersec. delay	49.0			Intersection LOS						D			

SHORT REPORT													
General Information						Site Information							
Analyst	USAI					Intersection	EL CAMINO REAL@ SR-78WB RAMPS						
Agency or Co.	USAI					Area Type	All other areas						
Date Performed	08/22/12					Jurisdiction	OCEANSIDE-INT.#2						
Time Period	AM PEAK					Analysis Year	EXISTING NO PROJECT						
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	0	0	0	1	1	1	2	3	0	0	3	1	
Lane group				L	LTR	R	L	T			T	R	
Volume (vph)				337	0	396	125	748			1658	438	
% Heavy veh				2	2	2	2	2			2	2	
PHF				0.92	0.92	0.92	0.92	0.92			0.92	0.92	
Actuated (P/A)				A	A	A	A	A			A	A	
Startup lost time				3.0	3.0	3.0	3.0	3.0			3.0	3.0	
Ext. eff. green				2.0	2.0	2.0	2.0	2.0			2.0	2.0	
Arrival type				3	3	3	5	5			5	5	
Unit Extension				3.0	3.0	3.0	3.0	3.0			3.0	3.0	
Ped/Bike/RTOR Volume	10			10		75				10	5	250	
Lane Width				12.0	12.0	12.0	12.0	12.0			12.0	12.0	
Parking/Grade/Parking	N		N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr				0	0	0	0	0			0	0	
Unit Extension				3.0	3.0	3.0	3.0	3.0			3.0	3.0	
Phasing	WB Only	02	03	04	NB Only	Thru & RT	07	08					
Timing	G = 31.0	G =	G =	G =	G = 13.7	G = 39.0	G =	G =					
	Y = 5.1	Y =	Y =	Y =	Y = 4.2	Y = 7	Y =	Y =					
Duration of Analysis (hrs) = 0.25						Cycle Length C = 100.0							
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate				256	215	244	136	813			1802	204	
Lane group cap.				531	505	475	436	2836			1928	588	
v/c ratio				0.48	0.43	0.51	0.31	0.29			0.93	0.35	
Green ratio				0.30	0.30	0.30	0.13	0.56			0.38	0.38	
Unif. delay d1				28.6	28.1	29.0	39.7	11.6			29.8	22.1	
Delay factor k				0.11	0.11	0.12	0.11	0.11			0.45	0.11	
Increm. delay d2				0.7	0.6	1.0	0.4	0.1			9.1	0.4	
PF factor				1.000	1.000	1.000	0.903	0.155			0.591	0.591	
Control delay				29.3	28.7	29.9	36.2	1.9			26.8	13.5	
Lane group LOS				C	C	C	D	A			C	B	
Apprch. delay				29.3			6.8			25.4			
Approach LOS				C			A			C			
Intersec. delay	21.4			Intersection LOS							C		

SHORT REPORT													
General Information						Site Information							
Analyst	USAI					Intersection	EL CAMINO REAL@ SR-78WB RAMPS						
Agency or Co.	USAI					Area Type	All other areas						
Date Performed	08/22/12					Jurisdiction	OCEANSIDE-INT.#2						
Time Period	PM PEAK					Analysis Year	EXISTING NO PROJECT						
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	0	0	0	1	1	1	2	3	0	0	3	1	
Lane group				L	LTR	R	L	T			T	R	
Volume (vph)				430	10	708	162	1880			1402	475	
% Heavy veh				2	2	2	2	2			2	2	
PHF				0.92	0.92	0.92	0.92	0.92			0.92	0.92	
Actuated (P/A)				A	A	A	A	A			A	A	
Startup lost time				3.0	3.0	3.0	3.0	3.0			3.0	3.0	
Ext. eff. green				2.0	2.0	2.0	2.0	2.0			2.0	2.0	
Arrival type				3	3	3	5	5			5	5	
Unit Extension				3.0	3.0	3.0	3.0	3.0			3.0	3.0	
Ped/Bike/RTOR Volume	10			10		0				10	5	0	
Lane Width				12.0	12.0	12.0	12.0	12.0			12.0	12.0	
Parking/Grade/Parking	N		N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr				0	0	0	0	0			0	0	
Unit Extension				3.0	3.0	3.0	3.0	3.0			3.0	3.0	
Phasing	WB Only	02	03	04	NB Only	Thru & RT	07	08					
Timing	G = 31.0	G =	G =	G =	G = 13.7	G = 39.0	G =	G =					
	Y = 5.1	Y =	Y =	Y =	Y = 4.2	Y = 7	Y =	Y =					
Duration of Analysis (hrs) = 0.25				Cycle Length C = 100.0									
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate				346	363	539	176	2043			1524	516	
Lane group cap.				531	497	475	436	2836			1928	588	
v/c ratio				0.65	0.73	1.13	0.40	0.72			0.79	0.88	
Green ratio				0.30	0.30	0.30	0.13	0.56			0.38	0.38	
Unif. delay d1				30.5	31.4	35.0	40.2	16.3			27.5	28.8	
Delay factor k				0.23	0.29	0.50	0.11	0.28			0.34	0.40	
Increm. delay d2				2.8	5.4	83.7	0.6	0.9			2.3	14.1	
PF factor				1.000	1.000	1.000	0.903	0.155			0.591	0.591	
Control delay				33.3	36.8	118.7	36.9	3.4			18.6	31.2	
Lane group LOS				C	D	F	D	A			B	C	
Apprch. delay				71.2			6.1			21.8			
Approach LOS				E			A			C			
Intersec. delay	26.7			Intersection LOS						C			

SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	EL CAMINO REAL@ SR-78EB RAMPS					
Agency or Co.	USAI					Area Type	All other areas					
Date Performed	08/22/12					Jurisdiction	OCEANSIDE-INT#3					
Time Period	AM PEAK					Analysis Year	EXISTING NO PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	0	1	0	0	0	0	3	1	2	3	0
Lane group	L		R					T	R	L	T	
Volume (vph)	337		134					563	317	503	1456	
% Heavy veh	2		2					2	2	2	2	
PHF	0.92		0.92					0.92	0.92	0.92	0.92	
Actuated (P/A)	A		A					A	A	A	A	
Startup lost time	3.0		3.0					3.0	3.0	3.0	3.0	
Ext. eff. green	2.0		2.0					2.0	2.0	2.0	2.0	
Arrival type	3		3					5	5	5	5	
Unit Extension	3.0		3.0					3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	5		0	5			5	10	0			
Lane Width	12.0		12.0					12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N		N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0		0					0	0	0	0	
Unit Extension	3.0		3.0					3.0	3.0	3.0	3.0	
Phasing	EB Only	02	03	04	SB Only	Thru & RT	07	08				
Timing	G = 20.0	G =	G =	G =	G = 38.0	G = 50.2	G =	G =				
	Y = 5.1	Y =	Y =	Y =	Y = 4.7	Y = 7	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 125.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	366		146					612	345	547	1583	
Lane group cap.	522		241					1997	610	1017	3730	
v/c ratio	0.70		0.61					0.31	0.57	0.54	0.42	
Green ratio	0.15		0.15					0.39	0.39	0.30	0.74	
Unif. delay d1	50.3		49.5					26.1	29.6	36.8	6.4	
Delay factor k	0.27		0.19					0.11	0.16	0.14	0.11	
Increm. delay d2	4.2		4.3					0.1	1.2	0.6	0.1	
PF factor	1.000		1.000					0.567	0.567	0.720	0.189	
Control delay	54.5		53.8					14.9	18.0	27.1	1.3	
Lane group LOS	D		D					B	B	C	A	
Apprch. delay	54.3						16.0			7.9		
Approach LOS	D						B			A		
Intersec. delay	16.7			Intersection LOS						B		

SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	EL CAMINO REAL@ SR-78EB RAMPS					
Agency or Co.	USAI					Area Type	All other areas					
Date Performed	08/22/12					Jurisdiction	OCEANSIDE-INT#3					
Time Period	PM PEAK					Analysis Year	EXISTING NO PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	0	1	0	0	0	0	3	1	2	3	0
Lane group	L		R					T	R	L	T	
Volume (vph)	614		251					1388	485	504	1330	
% Heavy veh	2		2					2	2	2	2	
PHF	0.92		0.92					0.92	0.92	0.92	0.92	
Actuated (P/A)	A		A					A	A	A	A	
Startup lost time	3.0		3.0					3.0	3.0	3.0	3.0	
Ext. eff. green	2.0		2.0					2.0	2.0	2.0	2.0	
Arrival type	3		3					5	5	5	5	
Unit Extension	3.0		3.0					3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	5		0	5			5	10	80			
Lane Width	12.0		12.0					12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N		N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0		0					0	0	0	0	
Unit Extension	3.0		3.0					3.0	3.0	3.0	3.0	
Phasing	EB Only	02	03	04	SB Only	Thru & RT	07	08				
Timing	G = 22.0	G =	G =	G =	G = 32.0	G = 54.2	G =	G =				
	Y = 5.1	Y =	Y =	Y =	Y = 4.7	Y = 7	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 125.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	667		273					1509	440	548	1446	
Lane group cap.	577		266					2159	660	852	3649	
v/c ratio	1.16		1.03					0.70	0.67	0.64	0.40	
Green ratio	0.17		0.17					0.43	0.43	0.25	0.72	
Unif. delay d1	52.0		52.0					29.4	28.8	42.1	6.9	
Delay factor k	0.50		0.50					0.27	0.24	0.22	0.11	
Increm. delay d2	88.5		62.1					1.0	2.6	1.7	0.1	
PF factor	1.000		1.000					0.506	0.506	0.780	0.178	
Control delay	140.5		114.1					15.9	17.1	34.5	1.3	
Lane group LOS	F		F					B	B	C	A	
Apprch. delay	132.9						16.2			10.4		
Approach LOS	F						B			B		
Intersec. delay	36.3			Intersection LOS						D		

7-AM
EX

SHORT REPORT													
General Information							Site Information						
Analyst	USAI						Intersection						VISTA WAY@RANCHO DEL
Agency or Co.	USAI						Area Type						ORO RD.
Date Performed	06/03/12						Jurisdiction						All other areas
Time Period	AM PEAK						Analysis Year						OCEANSIDE
EXISTING 2011													
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	1	2	0	1	2	0	1	1	0	1	1	1	
Lane group	L	TR		L	TR		L	TR		L	TR	R	
Volume (vph)	194	135	29	61	163	148	13	2	10	309	23	334	
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2	
PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	2.0	
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	2.0	
Arrival type	5	5		5	5		3	3		5	3	5	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0	
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5	10	0	
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0		0	0		0	0		0	0	0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0	
Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08					
Timing	G = 15.0	G = 20.0	G =	G =	G = 25.0	G = 20.0	G =	G =					
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 5	Y =	Y =					
Duration of Analysis (hrs) = 0.25							Cycle Length C = 100.0						
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	209	176		66	334		14	13		332	194	190	
Lane group cap.	266	684		266	643		443	317		443	310	301	
v/c ratio	0.79	0.26		0.25	0.52		0.03	0.04		0.75	0.63	0.63	
Green ratio	0.15	0.20		0.15	0.20		0.25	0.20		0.25	0.20	0.20	
Unif. delay d1	41.0	33.7		37.5	35.7		28.3	32.3		34.6	36.6	36.6	
Delay factor k	0.33	0.11		0.11	0.13		0.11	0.11		0.30	0.21	0.21	
Increm. delay d2	14.4	0.2		0.5	0.8		0.0	0.1		7.0	3.9	4.2	
PF factor	0.882	0.833		0.882	0.833		1.000	1.000		0.778	1.000	0.833	
Control delay	50.5	28.3		33.6	30.5		28.4	32.3		33.9	40.5	34.8	
Lane group LOS	D	C		C	C		C	C		C	D	C	
Apprch. delay	40.4			31.0			30.3			35.9			
Approach LOS	D			C			C			D			
Intersec. delay	35.7			Intersection LOS						D			

A-A
EX

El Camino Real at Plaza Drive

Lane Configuration for Intersection Capacity Utilization

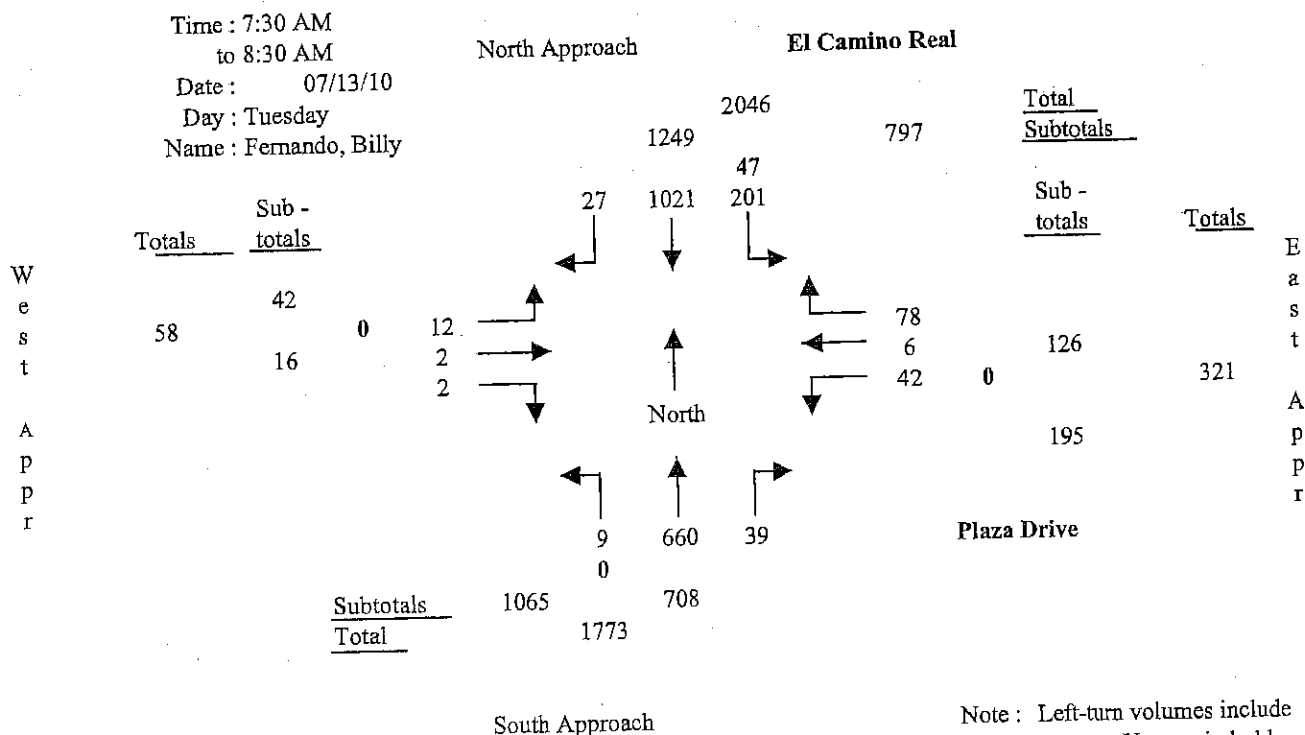
Page 2 of 3

Pk. Hr. Time Period :		South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
7:30 AM to 8:30 AM													
Lane Configurations	Inside (left)	1	1		1			1	1		1	1	
		2	1		1								1
		3		1		1				1			
		4		1		1							
		5		1	1		1						
		6											
	Outside	7											
	Free-flow												
Lane Settings		2	3	0	2	3	0	2	0	1	0	1	1
Capacity		3600	6000	0	3600	6000	0	3800	0	1800	0	2000	1800
Are the North/South phases split (Y/N)?				N									
Are the East/West phases split (Y/N)?				Y									
Efficiency Lost Factor		0.10											
Hourly Volume		9	660	39	201	1021	27	12	2	2	42	6	78
Adjusted Hourly Volume		9	699	0	201	1048	0	16	0	4	0	48	126
Utilization Factor		0.00	0.12	0.00	0.06	0.17	0.00	0.00	0.00	0.00	0.00	0.02	0.07
Critical Factors		0.00				0.17		0.00					0.07

ICU Ratio = 0.34 LOS = A

Turning Movements at Intersection of :

El Camino Real and Plaza Drive



4-P
EX

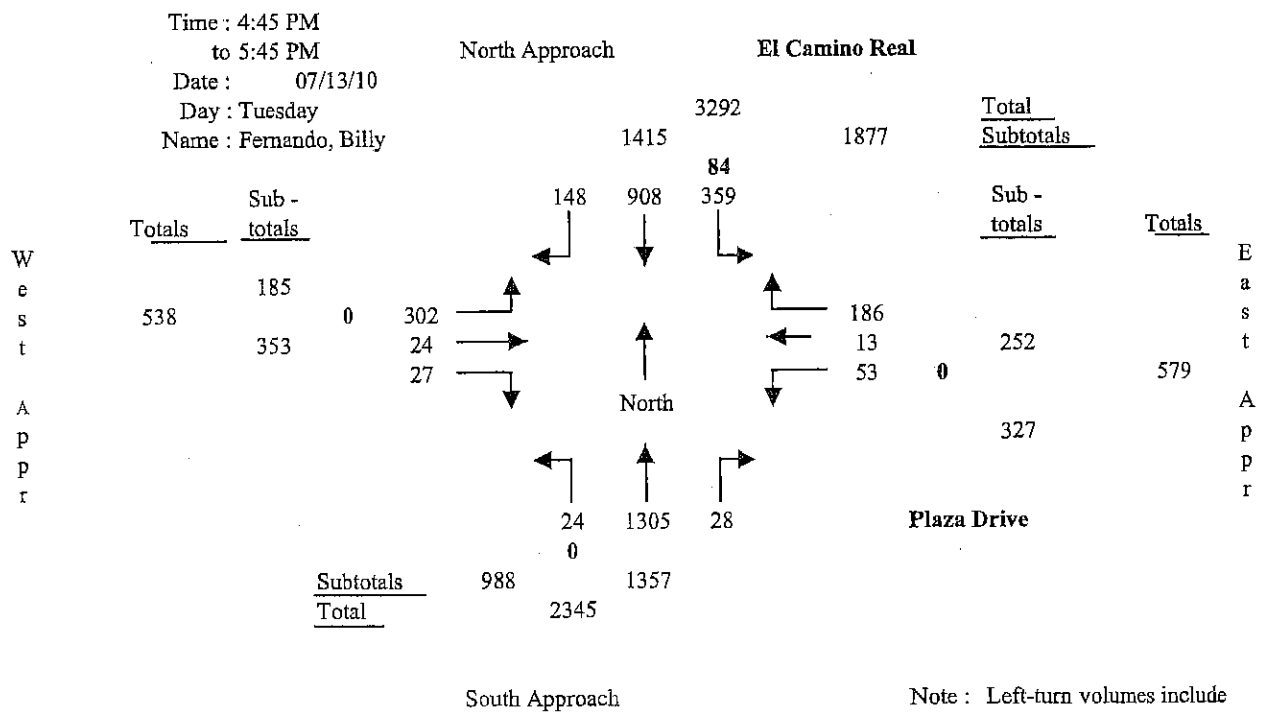
Page 3 of 3

Pk. Hr. Time Period :		South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
4:45 PM to 5:45 PM		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane	Inside	1	1		1			1					
Config -	(left)	2	1		1			1	1		1	1	
urations		3		1		1				1			1
		4		1		1							
		5		1		1	1						
		6											
		7											
	Outside												
Free-flow													
Lane Settings		2	3	0	2	3	0	2	0	1	0	1	1
Capacity		3600	6000	0	3600	6000	0	3800	0	1800	0	2000	1800
Are the North/South phases split (Y/N)?				N									
Are the East/West phases split (Y/N)?				Y									
Efficiency Lost Factor		0.10											
Hourly Volume		24	1305	28	359	908	148	302	24	27	53	13	186
Adjusted Hourly Volume		24	1333	0	359	1056	0	353	0	51	0	66	252
Utilization Factor		0.01	0.22	0.00	0.10	0.18	0.00	0.09	0.00	0.03	0.00	0.03	0.14
Critical Factors		0.22			0.10			0.09			0.14		

ICU Ratio = 0.65 LOS = B

Turning Movements at Intersection of :

El Camino Real and Plaza Drive



S-A
EX

El Camino Real at Marron Road

Lane Configuration for Intersection Capacity Utilization

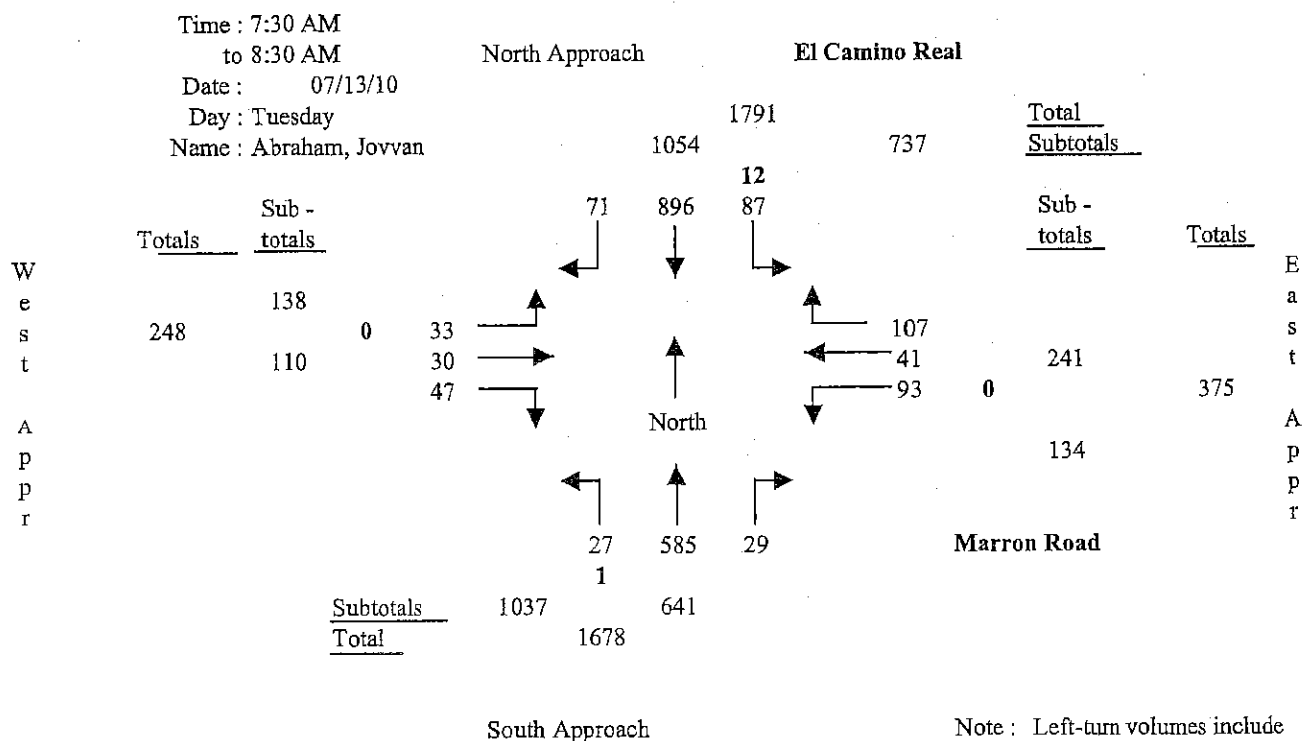
Page 2 of 3

Pk. Hr. Time Period :		South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
7:30 AM to 8:30 AM		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Configurations	Inside	1	1		1								
	(left)	2	1		1			1			1		
		3		1		1			1			1	
		4		1		1			1	1		1	1
		5		1	1		1						
		6											
	Outside	7											
Free-flow													
Lane Settings		2	3	0	2	3	0	1	2	0	1	2	0
Capacity		3600	6000	0	3600	6000	0	1800	4000	0	1800	4000	0
Are the North/South phases split (Y/N)?				N									
Are the East/West phases split (Y/N)?				N									
Efficiency Lost Factor		0.10											
Hourly Volume		27	585	29	87	896	71	33	30	47	93	41	107
Adjusted Hourly Volume		27	614	0	87	967	0	33	77	0	93	148	0
Utilization Factor		0.01	0.10	0.00	0.02	0.16	0.00	0.02	0.02	0.00	0.05	0.04	0.00
Critical Factors		0.01				0.16			0.02		0.05		

ICU Ratio = 0.34 LOS = A

Turning Movements at Intersection of:

El Camino Real and Marron Road



El Camino Real at Marron Road

Lane Configuration for Intersection Capacity Utilization

Page 3 of 3

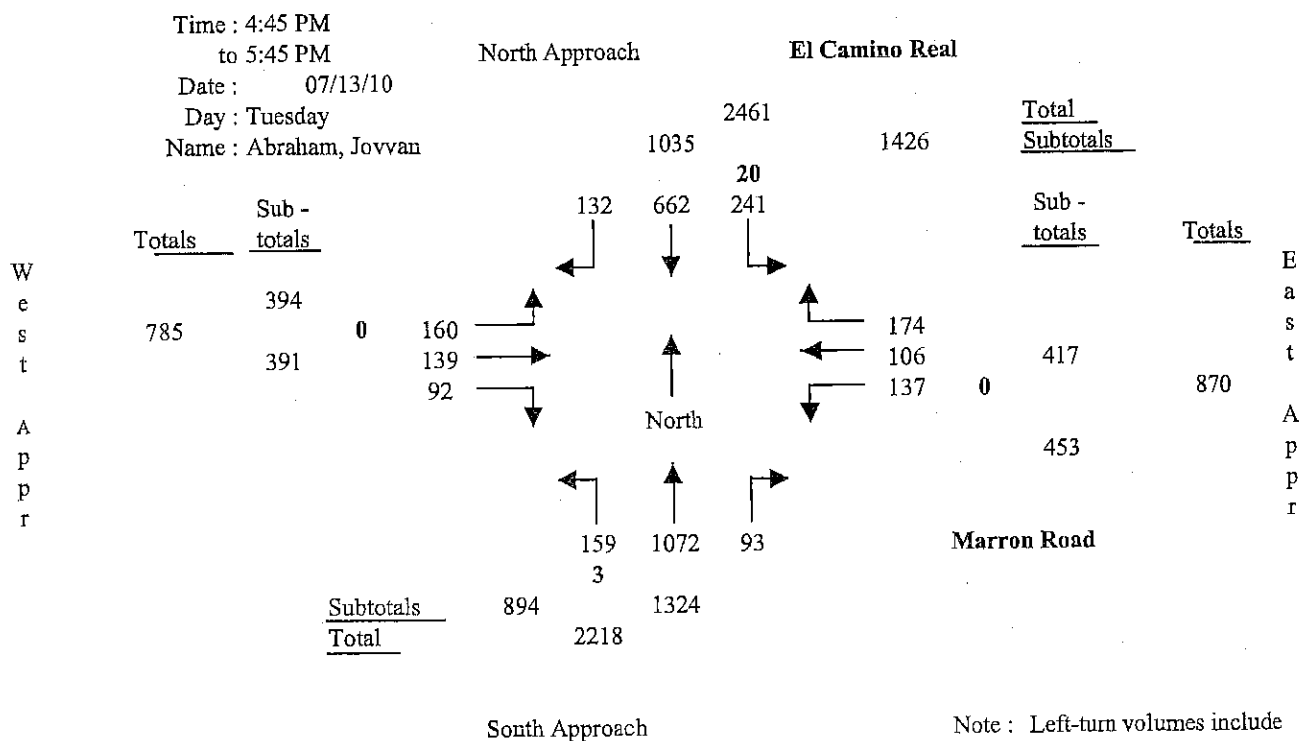
S-P
EX

Pk. Hr. Time Period :		South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
4:45 PM to 5:45 PM		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Configurations	Inside (left)	1	1		1			1			1		
		2	1		1								
		3		1		1			1			1	
		4		1		1			1	1		1	1
		5		1	1		1						
		6											
	Outside Free-flow	7											
Lane Settings		2	3	0	2	3	0	1	2	0	1	2	0
Capacity		3600	6000	0	3600	6000	0	1800	4000	0	1800	4000	0
Are the North/South phases split (Y/N)?				N									
Are the East/West phases split (Y/N)?				N									
Efficiency Lost Factor		0.10											
Hourly Volume		159	1072	93	241	662	132	160	139	92	137	106	174
Adjusted Hourly Volume		159	1165	0	241	794	0	160	231	0	137	280	0
Utilization Factor		0.04	0.19	0.00	0.07	0.13	0.00	0.09	0.06	0.00	0.08	0.07	0.00
Critical Factors			0.19		0.07			0.09				0.07	

ICU Ratio = 0.52 LOS = A

Turning Movements at Intersection of :

El Camino Real and Marron Road



G-A
EX

El Camino Real at Carlsbad Village Drive

Lane Configuration for Intersection Capacity Utilization

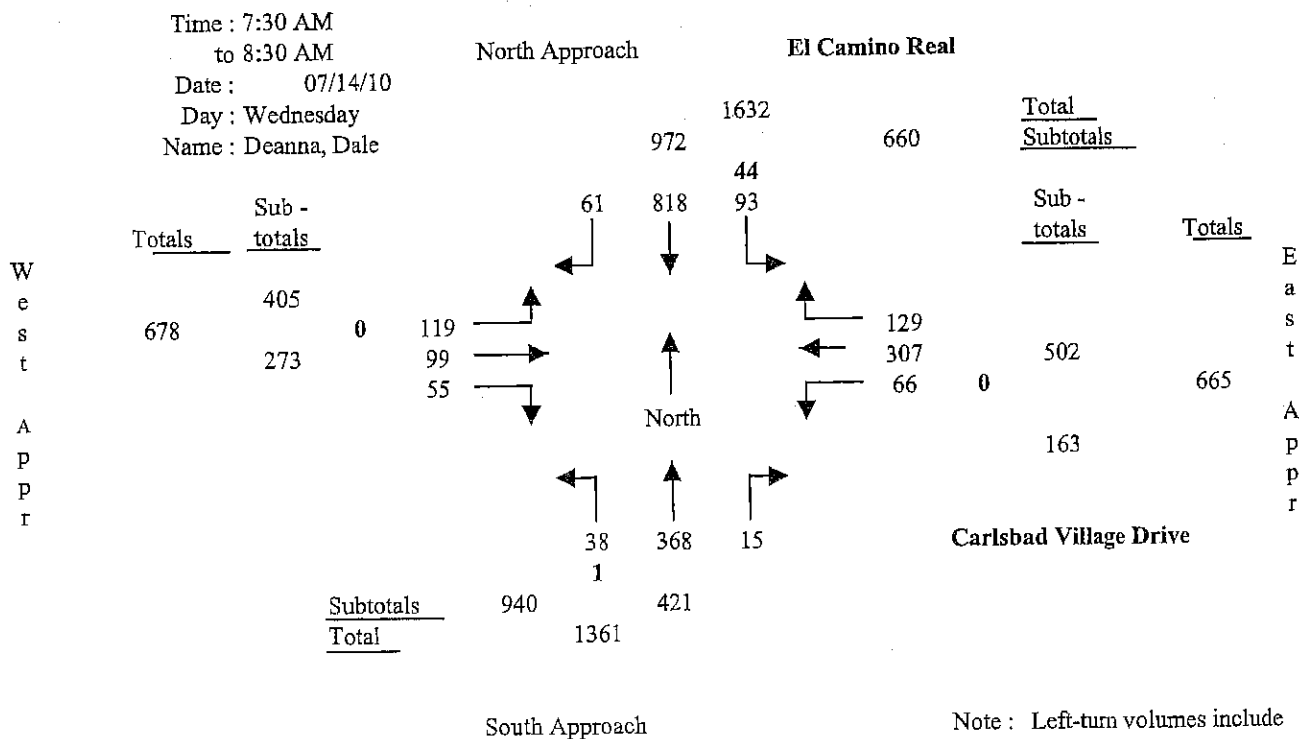
Page 2 of 3

Pk. Hr. Time Period :		South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
7:30 AM to 8:30 AM		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane	Inside	1	1		1			1			1		
Config -	(left)	2		1		1			1			1	
urations		3		1		1			1	1		1	1
		4		1		1	1						
		5											
		6											
	Outside	7											
	Free-flow												
Lane Settings		1	3	0	1	3	0	1	2	0	1	2	0
Capacity		1800	6000	0	1800	6000	0	1800	4000	0	1800	4000	0
Are the North/South phases split (Y/N)?				N									
Are the East/West phases split (Y/N)?				N									
Efficiency Lost Factor		0.10											
Hourly Volume		38	368	15	93	818	61	119	99	55	66	307	129
Adjusted Hourly Volume		38	383	0	93	879	0	119	154	0	66	436	0
Utilization Factor		0.02	0.06	0.00	0.05	0.15	0.00	0.07	0.04	0.00	0.04	0.11	0.00
Critical Factors		0.02				0.15		0.07				0.11	

ICU Ratio = 0.45 LOS = A

Turning Movements at Intersection of :

El Camino Real and Carlsbad Village Drive



G-P
EX

El Camino Real at Carlsbad Village Drive

Lane Configuration for Intersection Capacity Utilization

Page 3 of 3

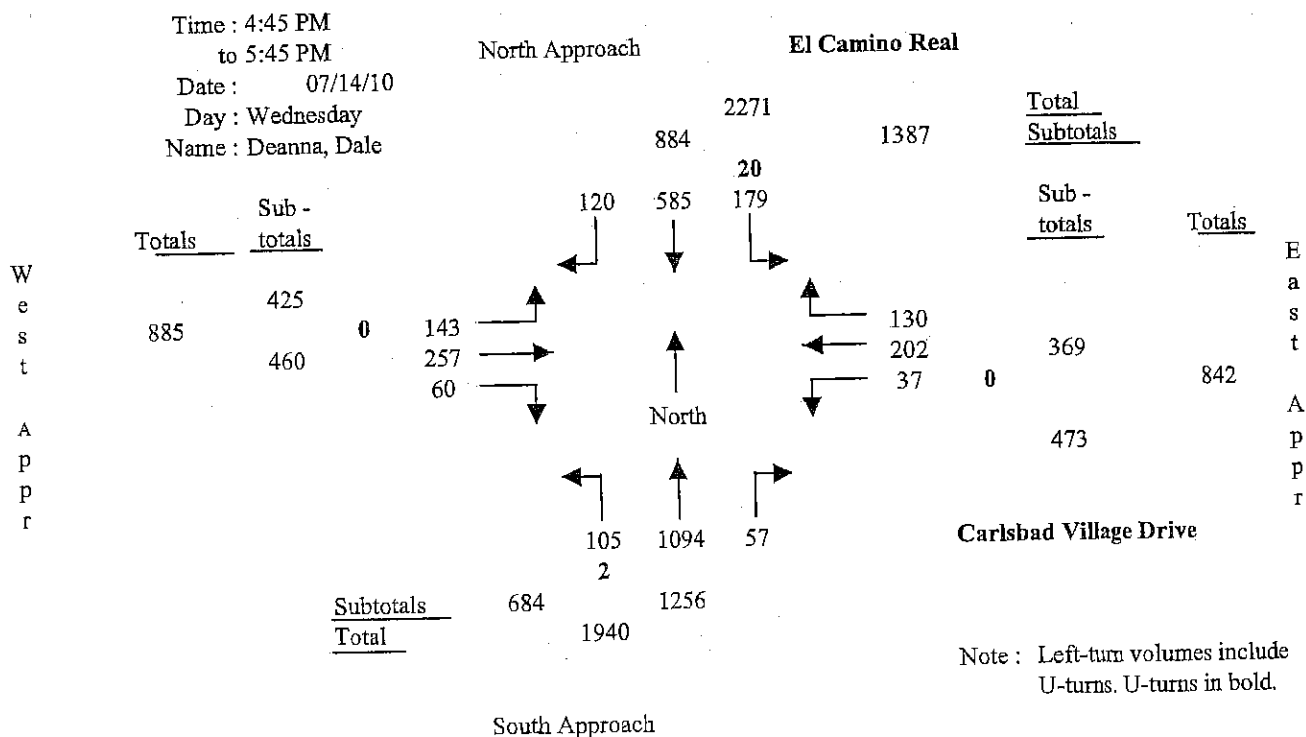
Pk. Hr. Time Period :		South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
4:45 PM	to												
5:45 PM		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane	Inside	1	1		1			1			1		
Config -	(left)	2		1		1			1			1	
urations		3		1		1			1	1		1	1
		4		1	1		1						
		5											
		6											
	Outside	7											
	Free-flow												
Lane Settings		1	3	0	1	3	0	1	2	0	1	2	0
Capacity		1800	6000	0	1800	6000	0	1800	4000	0	1800	4000	0
Are the North/South phases split (Y/N)?				N									
Are the East/West phases split (Y/N)?				N									
Efficiency Lost Factor		0.10											
Hourly Volume		105	1094	57	179	585	120	143	257	60	37	202	130
Adjusted Hourly Volume		105	1151	0	179	705	0	143	317	0	37	332	0
Utilization Factor		0.06	0.19	0.00	0.10	0.12	0.00	0.08	0.08	0.00	0.02	0.08	0.00
Critical Factors			0.19		0.10			0.08				0.08	

ICU Ratio = 0.55

LOS = A

Turning Movements at Intersection of :

El Camino Real and Carlsbad Village Drive



7-AM
EX

SHORT REPORT												
General Information						Site Information						
Analyst USAI						Intersection VISTA WAY@RANCHO DEL ORO RD.						
Agency or Co. USAI						Area Type All other areas						
Date Performed 06/03/12						Jurisdiction OCEANSIDE						
Time Period AM PEAK						Analysis Year EXISTING 2011						
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	2	0	1	2	0	1	1	0	1	1	1
Lane group	L	TR		L	TR		L	TR		L	TR	R
Volume (vph)	194	135	29	61	163	148	13	2	10	309	23	334
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	2.0
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	2.0
Arrival type	5	5		5	5		3	3		5	3	5
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5	10	0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0		0	0	0
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08				
Timing	G = 15.0	G = 20.0	G =	G =	G = 25.0	G = 20.0	G =	G =				
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 5	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 100.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	209	176		66	334		14	13		332	194	190
Lane group cap.	266	684		266	643		443	317		443	310	301
v/c ratio	0.79	0.26		0.25	0.52		0.03	0.04		0.75	0.63	0.63
Green ratio	0.15	0.20		0.15	0.20		0.25	0.20		0.25	0.20	0.20
Unif. delay d1	41.0	33.7		37.5	35.7		28.3	32.3		34.6	36.6	36.6
Delay factor k	0.33	0.11		0.11	0.13		0.11	0.11		0.30	0.21	0.21
Increm. delay d2	14.4	0.2		0.5	0.8		0.0	0.1		7.0	3.9	4.2
PF factor	0.882	0.833		0.882	0.833		1.000	1.000		0.778	1.000	0.833
Control delay	50.5	28.3		33.6	30.5		28.4	32.3		33.9	40.5	34.8
Lane group LOS	D	C		C	C		C	C		C	D	C
Apprch. delay	40.4			31.0			30.3			35.9		
Approach LOS	D			C			C			D		
Intersec. delay	35.7			Intersection LOS						D		

7-PM
EX

SHORT REPORT													
General Information						Site Information							
Analyst	USAI					Intersection	VISTA WAY@RANCHO DEL ORO RD.						
Agency or Co.	USAI					Area Type	All other areas						
Date Performed	06/03/12					Jurisdiction	OCEANSIDE						
Time Period	PM PEAK					Analysis Year	EXISTING 2011						
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	1	2	0	1	2	0	1	1	0	1	1	1	
Lane group	L	TR		L	TR		L	TR		L	TR	R	
Volume (vph)	452	427	9	11	291	254	26	31	8	216	8	288	
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2	
PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	2.0	
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	2.0	
Arrival type	5	5		5	5		3	3		5	3	5	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0	
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5	10	0	
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0		0	0		0	0		0	0	0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0	
Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08					
Timing	G = 30.0	G = 20.0	G =	G =	G = 15.0	G = 15.0	G =	G =					
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 5	Y =	Y =					
Duration of Analysis (hrs) = 0.25						Cycle Length C = 100.0							
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	471	454		11	568		27	40		225	149	159	
Lane group cap.	531	707		531	644		266	269		266	226	223	
v/c ratio	0.89	0.64		0.02	0.88		0.10	0.15		0.85	0.66	0.71	
Green ratio	0.30	0.20		0.30	0.20		0.15	0.15		0.15	0.15	0.15	
Unif. delay d1	33.4	36.7		24.7	38.9		36.7	36.9		41.4	40.1	40.5	
Delay factor k	0.41	0.22		0.11	0.41		0.11	0.11		0.38	0.23	0.28	
Increm. delay d2	16.5	2.0		0.0	13.6		0.2	0.3		21.5	6.9	10.3	
PF factor	0.714	0.833		0.714	0.833		1.000	1.000		0.882	1.000	0.882	
Control delay	40.4	32.6		17.6	46.0		36.9	37.2		58.0	47.0	46.0	
Lane group LOS	D	C		B	D		D	D		E	D	D	
Apprch. delay	36.6			45.4			37.1			51.3			
Approach LOS	D			D			D			D			
Intersec. delay	42.8			Intersection LOS						D			

SHORT REPORT													
General Information						Site Information							
Analyst	USAI					Intersection	COLLEGE BLVD.@ VISTA WAY						
Agency or Co.	USAI					Area Type	All other areas						
Date Performed	08/28/12					Jurisdiction	OCEANSIDE-INT#11						
Time Period	AM PEAK					Analysis Year	EXISTING/NO PROJECT						
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	2	2	1	2	2	0	1	3	1	2	3	0	
Lane group	L	T	R	L	TR		L	T	R	L	TR		
Volume (vph)	44	121	400	430	150	226	151	592	693	46	1407	35	
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0		
Ext. eff. green	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0		
Arrival type	5	5	5	5	5		5	5	5	5	5		
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0		
Ped/Bike/RTOR Volume	5	5	0	5	5	123	5	5	0	5	5	0	
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0	12.0	12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0	0	0	0		0	0	0	0	0		
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0		
Phasing	Excl. Left	WB Only	Thru & RT	04			Excl. Left	Thru & RT	07			08	
Timing	G = 4.0	G = 8.0	G = 7.0	G =			G = 9.5	G = 42.0	G =			G =	
	Y = 5.6	Y = 5.6	Y = 6.4	Y =			Y = 5.6	Y = 6.3	Y =			Y =	
Duration of Analysis (hrs) = 0.25						Cycle Length C = 100.0							
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	46	127	421	453	266		159	623	729	48	1518		
Lane group cap.	137	248	349	605	679		168	2131	814	327	2122		
v/c ratio	0.34	0.51	1.21	0.75	0.39		0.95	0.29	0.90	0.15	0.72		
Green ratio	0.04	0.07	0.23	0.18	0.21		0.09	0.42	0.52	0.09	0.42		
Unif. delay d1	46.7	44.9	38.5	39.1	34.3		45.0	19.2	21.4	41.5	24.0		
Delay factor k	0.11	0.12	0.50	0.30	0.11		0.46	0.11	0.42	0.11	0.28		
Increm. delay d2	1.5	1.8	116.8	5.2	0.4		53.7	0.1	12.5	0.2	1.2		
PF factor	0.972	0.950	0.802	0.858	0.827		0.930	0.517	0.269	0.930	0.517		
Control delay	46.9	44.4	147.7	38.7	28.7		95.6	10.0	18.3	38.8	13.6		
Lane group LOS	D	D	F	D	C		F	A	B	D	B		
Apprch. delay	117.8			35.0			23.0			14.4			
Approach LOS	F			D			C			B			
Intersec. delay	34.7			Intersection LOS						C			

SHORT REPORT												
General Information						Site Information						
Analyst	USA/					Intersection	COLLEGE BLVD.@ VISTA WAY					
Agency or Co.	USA/					Area Type	All other areas					
Date Performed	08/28/12					Jurisdiction	OCEANSIDE-INT#11					
Time Period	PM PEAK					Analysis Year	EXISTING/NO PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	2	1	2	2	0	1	3	1	2	3	0
Lane group	L	T	R	L	TR		L	T	R	L	TR	
Volume (vph)	118	201	377	430	341	343	291	1179	633	36	1147	92
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Ext. eff. green	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Arrival type	5	5	5	5	5		5	5	5	5	5	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	5	5	10	5	5	65	5	5	0	5	5	0
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0		0	0	0	0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Phasing	Excl. Left	WB Only	Thru & RT	04	Excl. Left	NB Only	Thru & RT	08				
Timing	G = 6.0	G = 16.0	G = 10.0	G =	G = 7.0	G = 5.0	G = 31.1	G =				
	Y = 5.6	Y = 5.6	Y = 6.3	Y =	Y = 5.6	Y = 5.6	Y = 6.2	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 110.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	124	212	386	453	652		306	1241	666	38	1304	
Lane group cap.	187	322	324	862	941		283	1924	1068	219	1416	
v/c ratio	0.66	0.66	1.19	0.53	0.69		1.08	0.65	0.62	0.17	0.92	
Green ratio	0.05	0.09	0.21	0.25	0.29		0.16	0.38	0.69	0.06	0.28	
Unif. delay d1	51.0	48.3	43.3	35.6	34.9		46.2	28.1	9.5	48.8	38.3	
Delay factor k	0.24	0.23	0.50	0.13	0.26		0.50	0.22	0.21	0.11	0.44	
Increm. delay d2	8.5	4.9	112.6	0.6	2.2		76.8	0.8	1.1	0.4	10.1	
PF factor	0.962	0.933	0.821	0.777	0.731		0.873	0.593	0.159	0.955	0.737	
Control delay	57.6	50.0	148.2	28.2	27.7		117.2	17.4	2.7	46.9	38.3	
Lane group LOS	E	D	F	C	C		F	B	A	D	D	
Apprch. delay	103.8			27.9			26.8			38.6		
Approach LOS	F			C			C			D		
Intersec. delay	40.3			Intersection LOS						D		

SHORT REPORT												
General Information						Site Information						
Analyst Agency or Co. Date Performed Time Period						Intersection Area Type Jurisdiction Analysis Year						
USA/ USA/ 08/28/12 AM PEAK						COLLEGE BLVD.@ SR- 78EB OFF-RAM All other areas OCEANSIDE EXISTING 2011						
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	0	1	0	0	0	0	4	0	0	5	0
Lane group	L		R					T			T	
Volume (vph)	506		237					930			1788	
% Heavy veh	2		2					2			2	
PHF	0.95		0.95					0.95			0.95	
Actuated (P/A)	A		A					A			A	
Startup lost time	2.0		2.0					2.0			2.0	
Ext. eff. green	2.0		2.0					2.0			2.0	
Arrival type	4		4					5			5	
Unit Extension	3.0		3.0					3.0			3.0	
Ped/Bike/RTOR Volume	5		0	5								
Lane Width	12.0		12.0					12.0			12.0	
Parking/Grade/Parking	N	0	N	N		N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0		0					0			0	
Unit Extension	3.0		3.0					3.0			3.0	
Phasing	EB Only	02	03	04	Thru Only	06	07	08				
Timing	G = 26.0	G =	G =	G =	G = 64.0	G =	G =	G =				
	Y = 5	Y =	Y =	Y =	Y = 5	Y =	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 100.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	533		249					979			1882	
Lane group cap.	894		412					4330			5412	
v/c ratio	0.60		0.60					0.23			0.35	
Green ratio	0.26		0.26					0.64			0.64	
Unif. delay d1	32.4		32.5					7.6			8.3	
Delay factor k	0.19		0.19					0.11			0.11	
Increm. delay d2	1.1		2.5					0.0			0.0	
PF factor	1.000		1.000					0.139			0.139	
Control delay	33.5		35.0					1.1			1.2	
Lane group LOS	C		D					A			A	
Apprch. delay	34.0						1.1			1.2		
Approach LOS	C						A			A		
Intersec. delay	8.2			Intersection LOS						A		

SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	COLLEGE BLVD.@ SR-78EB OFF-RAM					
Agency or Co.	USAI					Area Type	All other areas					
Date Performed	08/28/12					Jurisdiction	OCEANSIDE					
Time Period	PM PEAK					Analysis Year	EXISTING 2011					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	0	1	0	0	0	0	4	0	0	5	0
Lane group	L		R					T			T	
Volume (vph)	467		439					1636			1616	
% Heavy veh	2		2					2			2	
PHF	0.95		0.95					0.95			0.95	
Actuated (P/A)	A		A					A			A	
Startup lost time	2.0		2.0					2.0			2.0	
Ext. eff. green	2.0		2.0					2.0			2.0	
Arrival type	4		4					5			5	
Unit Extension	3.0		3.0					3.0			3.0	
Ped/Bike/RTOR Volume	5		0	5								
Lane Width	12.0		12.0					12.0			12.0	
Parking/Grade/Parking	N	0	N	N		N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0		0					0			0	
Unit Extension	3.0		3.0					3.0			3.0	
Phasing	EB Only	02	03	04	Thru Only	06	07	08				
Timing	G = 36.0	G =	G =	G =	G = 54.0	G =	G =	G =				
	Y = 5	Y =	Y =	Y =	Y = 5	Y =	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 100.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	492		462					1722			1701	
Lane group cap.	1237		570					3653			4567	
v/c ratio	0.40		0.81					0.47			0.37	
Green ratio	0.36		0.36					0.54			0.54	
Unif. delay d1	23.9		28.9					14.2			13.2	
Delay factor k	0.11		0.35					0.11			0.11	
Increm. delay d2	0.2		8.6					0.1			0.1	
PF factor	0.934		0.934					0.217			0.217	
Control delay	22.5		35.7					3.2			2.9	
Lane group LOS	C		D					A			A	
Apprch. delay	28.9						3.2			2.9		
Approach LOS	C						A			A		
Intersec. delay	8.7			Intersection LOS						A		

SHORT REPORT												
General Information							Site Information					
Analyst	USAI						COLLEGE BLVD.@ PLAZA DR.					
Agency or Co.	USAI						Area Type					
Date Performed	08/28/12						All other areas					
Time Period	AM PEAK						Jurisdiction					
							OCEANSIDE					
							Analysis Year					
							EXISTING 2011					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	1	0	1	1	1	1	3	0	2	3	0
Lane group	L	TR		L	T	R	L	TR		L	TR	
Volume (vph)	11	12	8	101	14	219	27	706	224	750	1237	38
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Ext. eff. green	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Arrival type	4	4		4	4	4	5	5		5	5	
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5	10	0
Lane Width	12.0	12.0		12.0	12.0	12.0	12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0	0	0	0		0	0	
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Phasing	EB Only	WB Only	03	04	Excl. Left	SB Only	Thru & RT	08				
Timing	G = 12.0	G = 8.0	G =	G =	G = 10.0	G = 19.0	G = 31.0	G =				
	Y = 4	Y = 4	Y =	Y =	Y = 4	Y = 4	Y = 4	Y =				
Duration of Analysis (hrs) = 0.25			Cycle Length C = 100.0									
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	12	21		106	15	231	28	979		789	1342	
Lane group cap.	192	190		122	130	672	159	1459		1100	2675	
v/c ratio	0.06	0.11		0.87	0.12	0.34	0.18	0.67		0.72	0.50	
Green ratio	0.11	0.11		0.07	0.07	0.44	0.09	0.30		0.32	0.53	
Unif. delay d1	39.9	40.1		46.0	43.6	18.5	42.1	30.7		30.0	15.0	
Delay factor k	0.11	0.11		0.40	0.11	0.11	0.11	0.24		0.28	0.11	
Increm. delay d2	0.1	0.3		44.4	0.4	0.3	0.5	1.2		2.3	0.2	
PF factor	1.000	1.000		1.000	1.000	0.849	0.934	0.714		0.686	0.248	
Control delay	40.0	40.4		90.4	44.0	16.0	39.8	23.1		22.9	3.9	
Lane group LOS	D	D		F	D	B	D	C		C	A	
Apprch. delay	40.2			39.6			23.6			10.9		
Approach LOS	D			D			C			B		
Intersec. delay	17.7			Intersection LOS						B		

SHORT REPORT												
General Information							Site Information					
Analyst	USAI						COLLEGE BLVD.@ PLAZA DR.					
Agency or Co.	USAI						Area Type					
Date Performed	08/28/12						All other areas					
Time Period	PM PEAK						Jurisdiction					
							OCEANSIDE					
							EXISTING 2011/NO PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	1	0	1	1	1	1	3	0	2	3	0
Lane group	L	TR		L	T	R	L	TR		L	TR	
Volume (vph)	40	27	19	152	12	446	17	1150	101	725	1294	36
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Ext. eff. green	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Arrival type	4	4		4	4	4	5	5		5	5	
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	5	10	0	22	10	0	9	10	0	5	10	0
Lane Width	12.0	12.0		12.0	12.0	12.0	12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0	0	0	0		0	0	
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Phasing	EB Only	WB Only	03	04	Excl. Left	SB Only	Thru & RT	08				
Timing	G = 10.0	G = 13.0	G =	G =	G = 7.0	G = 13.0	G = 42.2	G =				
	Y = 4.2	Y = 5.6	Y =	Y =	Y = 4.2	Y = 5.2	Y = 5.6	Y =				
Duration of Analysis (hrs) = 0.25							Cycle Length C = 110.0					
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	42	48		160	13	469	18	1317		763	1400	
Lane group cap.	134	140		191	203	558	97	1874		725	2726	
v/c ratio	0.31	0.34		0.84	0.06	0.84	0.19	0.70		1.05	0.51	
Green ratio	0.08	0.08		0.11	0.11	0.38	0.05	0.37		0.21	0.54	
Unif. delay d1	47.6	47.7		48.0	44.0	31.1	49.7	29.2		43.4	16.1	
Delay factor k	0.11	0.11		0.37	0.11	0.38	0.11	0.27		0.50	0.12	
Increm. delay d2	1.3	1.5		26.6	0.1	11.1	0.9	1.2		48.1	0.2	
PF factor	1.000	1.000		1.000	1.000	0.915	0.962	0.601		0.822	0.217	
Control delay	48.9	49.2		74.7	44.1	39.5	48.7	18.8		83.7	3.7	
Lane group LOS	D	D		E	D	D	D	B		F	A	
Apprch. delay	49.1			48.3			19.2			31.9		
Approach LOS	D			D			B			C		
Intersec. delay	30.7			Intersection LOS						C		

SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	COLLEGE BLVD. @ MARRON RD.					
Agency or Co.	USAI					Area Type	All other areas					
Date Performed	08/28/12					Jurisdiction	OCEANSIDE					
Time Period	AM PEAK					Analysis Year	EXISTING 2011/NO PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	1	1	1	1	1	2	2	1	2	2	0
Lane group	L	T	R	L	T	R	L	T	R	L	T	
Volume (vph)	115	34	100	403	87	260	128	601	233	196	885	
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Arrival type	4	4	4	4	4	4	5	5	5	5	5	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	5		0	5	10	0	5	10	0	5		
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0	0	0	0	0	0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Phasing	Excl. Left	WB Only	Thru & RT	04			Excl. Left	SB Only	Thru & RT	08		
Timing	G = 10.0	G = 15.0	G = 10.0	G =			G = 5.0	G = 6.0	G = 30.0	G =		
	Y = 4	Y = 4	Y = 4	Y =			Y = 4	Y = 4	Y = 4	Y =		
Duration of Analysis (hrs) = 0.25						Cycle Length C = 100.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	125	37	109	438	95	283	139	653	253	213	962	
Lane group cap.	344	186	301	513	540	585	172	1064	464	516	1419	
v/c ratio	0.36	0.20	0.36	0.85	0.18	0.48	0.81	0.61	0.55	0.41	0.68	
Green ratio	0.10	0.10	0.19	0.29	0.29	0.38	0.05	0.30	0.30	0.15	0.40	
Unif. delay d1	42.0	41.3	35.2	33.5	26.6	23.5	47.0	30.0	29.3	38.5	24.7	
Delay factor k	0.11	0.11	0.11	0.39	0.11	0.11	0.35	0.20	0.15	0.11	0.25	
Increm. delay d2	0.7	0.5	0.7	13.2	0.2	0.6	24.1	1.1	1.3	0.5	1.3	
PF factor	1.000	1.000	1.000	0.993	0.993	0.915	0.965	0.714	0.714	0.882	0.556	
Control delay	42.7	41.8	36.0	46.5	26.5	22.2	69.5	22.5	22.3	34.5	15.0	
Lane group LOS	D	D	D	D	C	C	E	C	C	C	B	
Approch. delay	39.9			35.7			28.7			18.6		
Approach LOS	D			D			C			B		
Intersec. delay	27.7			Intersection LOS						C		

SHORT REPORT												
General Information							Site Information					
Analyst	USAI						COLLEGE BLVD. @ MARRON RD.					
Agency or Co.	USAI						All other areas					
Date Performed	08/28/12						OCEANSIDE					
Time Period	PM PEAK						EXISTING 2011/NO PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	1	1	1	1	1	2	2	1	2	2	0
Lane group	L	T	R	L	T	R	L	T	R	L	T	
Volume (vph)	470	229	211	176	145	164	204	797	425	320	567	
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Arrival type	4	4	4	4	4	4	5	5	5	5	5	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5		
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0	0	0	0	0	0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Phasing	Excl. Left	Thru & RT	03		04		Excl. Left	Thru & RT	07		08	
Timing	G = 19.0	G = 16.0	G =		G =		G = 12.2	G = 31.9	G =		G =	
	Y = 4.6	Y = 5.3	Y =		Y =		Y = 5.3	Y = 5.7	Y =		Y =	
Duration of Analysis (hrs) = 0.25							Cycle Length C = 100.0					
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	495	241	222	185	153	173	215	839	447	337	597	
Lane group cap.	653	298	516	336	298	516	419	1131	878	419	1131	
v/c ratio	0.76	0.81	0.43	0.55	0.51	0.34	0.51	0.74	0.51	0.80	0.53	
Green ratio	0.19	0.16	0.34	0.19	0.16	0.34	0.12	0.32	0.57	0.12	0.32	
Unif. delay d1	38.3	40.5	25.8	36.6	38.4	24.9	41.1	30.4	13.2	42.7	27.9	
Delay factor k	0.31	0.35	0.11	0.15	0.12	0.11	0.12	0.30	0.12	0.35	0.13	
Increm. delay d2	5.1	15.2	0.6	1.9	1.5	0.4	1.1	2.7	0.5	10.9	0.5	
PF factor	1.000	1.000	0.957	1.000	1.000	0.957	0.907	0.688	0.131	0.907	0.688	
Control delay	43.5	55.7	25.3	38.6	40.0	24.2	38.4	23.6	2.2	49.7	19.6	
Lane group LOS	D	E	C	D	D	C	D	C	A	D	B	
Apprch. delay	42.3			34.1			19.3			30.5		
Approach LOS	D			C			B			C		
Intersec. delay	29.6			Intersection LOS						C		

SHORT REPORT													
General Information							Site Information						
Analyst	USAI						Intersection						VISTA WAY@SR78WB OFF-ON RAMP
Agency or Co.	USAI						Area Type						All other areas
Date Performed	08/28/12						Jurisdiction						OCEANSIDE
Time Period	AM PEAK						Analysis Year						EXISTING 2011
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	1	2	1	2	2	0	1	1	1	0	2	0	
Lane group	L	T	R	L	TR		L	LT	R		LTR		
Volume (vph)	78	519	269	207	218	37	629	61	176	43	68	35	
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0		
Ext. eff. green	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0		2.0		
Arrival type	5	5	5	5	5		3	3	3		3		
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0		
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5	10	0	
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0		12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0	0	0	0		0	0	0		0		
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0		
Phasing	Excl. Left	Thru & RT	03		04		SB Only		NB Only		07 08		
Timing	G = 11.0	G = 27.0	G =		G =		G = 9.0		G = 37.0		G =		
	Y = 4	Y = 4	Y =		Y =		Y = 4		Y = 4		Y =		
Duration of Analysis (hrs) = 0.25			Cycle Length C = 100.0										
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	82	546	283	218	268		364	362	185		154		
Lane group cap.	177	922	401	344	896		634	641	557		265		
v/c ratio	0.46	0.59	0.71	0.63	0.30		0.57	0.56	0.33		0.58		
Green ratio	0.10	0.26	0.26	0.10	0.26		0.36	0.36	0.36		0.08		
Unif. delay d1	42.5	32.4	33.5	43.2	29.7		25.8	25.7	23.3		44.4		
Delay factor k	0.11	0.18	0.27	0.21	0.11		0.17	0.16	0.11		0.17		
Increm. delay d2	1.9	1.0	5.6	3.8	0.2		1.3	1.2	0.4		3.2		
PF factor	0.926	0.766	0.766	0.926	0.766		1.000	1.000	1.000		1.000		
Control delay	41.2	25.8	31.3	43.8	22.9		27.1	26.9	23.6		47.6		
Lane group LOS	D	C	C	D	C		C	C	C		D		
Apprch. delay	28.9			32.3			26.3			47.6			
Approach LOS	C			C			C			D			
Intersec. delay	29.8			Intersection LOS						C			

SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection VISTA WAY@SR78WB OFF-ON RAMP						
Agency or Co.	USAI					Area Type All other areas						
Date Performed	08/28/12					Jurisdiction OCEANSIDE						
Time Period	PM PEAK					Analysis Year EXISTING 2011						
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	2	1	2	2	0	1	1	1	0	2	0
Lane group	L	T	R	L	TR		L	LT	R		LTR	
Volume (vph)	86	476	303	293	410	33	728	62	115	65	83	56
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0	
Ext. eff. green	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0		2.0	
Arrival type	5	5	5	5	5		3	3	3		3	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0	
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5	10	0
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0		12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0		0	0	0		0	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0	
Phasing	Excl. Left	WB Only	Thru & RT	04		SB Only	NB Only	07		08		
Timing	G = 10.0	G = 9.0	G = 22.0	G =		G = 9.0	G = 40.0	G =		G =		
	Y = 4	Y = 4	Y = 4	Y =		Y = 4	Y = 4	Y =		Y =		
Duration of Analysis (hrs) = 0.25						Cycle Length C = 110.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	91	501	319	308	467		421	410	121		214	
Lane group cap.	145	677	843	687	1081		628	634	549		239	
v/c ratio	0.63	0.74	0.38	0.45	0.43		0.67	0.65	0.22		0.90	
Green ratio	0.08	0.19	0.55	0.20	0.31		0.35	0.35	0.35		0.07	
Unif. delay d1	48.9	41.9	14.3	38.7	30.3		30.1	29.7	24.9		50.6	
Delay factor k	0.21	0.30	0.11	0.11	0.11		0.24	0.22	0.11		0.42	
Increm. delay d2	8.3	4.3	0.3	0.5	0.3		2.8	2.3	0.2		32.1	
PF factor	0.941	0.843	0.200	0.833	0.702		1.000	1.000	1.000		1.000	
Control delay	54.3	39.7	3.1	32.7	21.5		32.8	32.0	25.1		82.7	
Lane group LOS	D	D	A	C	C		C	C	C		F	
Apprch. delay	28.3			26.0			31.5			82.7		
Approach LOS	C			C			C			F		
Intersec. delay	32.8			Intersection LOS						C		

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	PLAZA BLVD.@SR-78EB
Agency or Co.	USAI	Area Type	OFF-ON RAM
Date Performed	08/24/12	Jurisdiction	All other areas
Time Period	AM PEAK	Analysis Year	OCEANSIDE
			EXISTING 2011/NO PROJECT

Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	2	0	1	2	0	1	1	1	1	1	0
Lane group	L	TR		L	TR		L	LT	R	L	TR	
Volume (vph)	754	203	23	24	248	36	31	3	7	65	11	30
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Arrival type	5	5		5	5		3	3	3	3	3	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5	10	0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0	0	0	0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Phasing	Excl. Left	EB Only	Thru & RT	04		SB Only	NB Only		07		08	
Timing	G = 5.0	G = 43.0	G = 19.0	G =		G = 9.0	G = 4.0		G =		G =	
	Y = 4	Y = 4	Y = 4	Y =		Y = 4	Y = 4		Y =		Y =	
Duration of Analysis (hrs) = 0.25								Cycle Length C = 100.0				

Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	794	238		25	299		18	18	7	68	44	
Lane group cap.	1753	2264		71	624		50	51	42	139	127	
v/c ratio	0.45	0.11		0.35	0.48		0.36	0.35	0.17	0.49	0.35	
Green ratio	0.51	0.65		0.04	0.18		0.03	0.03	0.03	0.08	0.08	
Unif. delay d1	15.6	6.6		46.7	36.8		47.6	47.5	47.3	44.0	43.5	
Delay factor k	0.11	0.11		0.11	0.11		0.11	0.11	0.11	0.11	0.11	
Increm. delay d2	0.2	0.0		3.0	0.6		4.4	4.2	1.9	2.7	1.6	
PF factor	0.306	0.143		0.972	0.854		1.000	1.000	1.000	1.000	1.000	
Control delay	5.0	1.0		48.4	32.0		51.9	51.7	49.2	46.7	45.2	
Lane group LOS	A	A		D	C		D	D	D	D	D	
Apprch. delay	4.0			33.3			51.4			46.1		
Approach LOS	A			C			D			D		
Intersec. delay	14.8			Intersection LOS						B		

SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	PLAZA BLVD.@SR-78EB					
Agency or Co.	USAI					Area Type	OFF-ON RAM					
Date Performed	08/28/12					Jurisdiction	All other areas					
Time Period	PM PEAK					Analysis Year	OCEANSIDE					
						EXISTING 2011						
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	2	0	1	2	0	1	1	1	1	1	0
Lane group	L	TR		L	TR		L	LT	R	L	TR	
Volume (vph)	791	319	55	96	352	59	145	44	54	123	38	39
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Arrival type	5	5		5	5		3	3	3	3	3	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	15	10	0	5	10	0	17	10	0	15	10	0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0	0	0	0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Phasing	Excl. Left	EB Only	Thru & RT	04		SB Only	NB Only	07		08		
Timing	G = 14.0	G = 26.0	G = 23.0	G =		G = 15.0	G = 12.0	G =		G =		
	Y = 4	Y = 4	Y = 4	Y =		Y = 4	Y = 4	Y =		Y =		
Duration of Analysis (hrs) = 0.25						Cycle Length C = 110.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	833	394		101	433		84	115	57	129	81	
Lane group cap.	1344	1629		209	691		166	174	146	218	212	
v/c ratio	0.62	0.24		0.48	0.63		0.51	0.66	0.39	0.59	0.38	
Green ratio	0.39	0.47		0.12	0.20		0.10	0.10	0.10	0.13	0.13	
Unif. delay d1	26.9	17.3		45.4	40.2		46.9	47.7	46.4	45.3	44.0	
Delay factor k	0.20	0.11		0.11	0.21		0.11	0.24	0.11	0.18	0.11	
Increm. delay d2	0.9	0.1		1.8	1.8		2.5	9.0	1.7	4.2	1.2	
PF factor	0.572	0.402		0.911	0.833		1.000	1.000	1.000	1.000	1.000	
Control delay	16.3	7.0		43.1	35.3		49.4	56.7	48.1	49.6	45.2	
Lane group LOS	B	A		D	D		D	E	D	D	D	
Apprch. delay	13.3			36.8			52.4			47.9		
Approach LOS	B			D			D			D		
Intersec. delay	26.7			Intersection LOS						C		

19-AM
EX**SHORT REPORT**

General Information						Site Information					
Analyst	USAI					Intersection	LAKE BLVD.@THUNDER DR.				
Agency or Co.	USAI					Area Type	All other areas				
Date Performed	08/28/12					Jurisdiction	OCEANSIDE-INT.#19				
Time Period	AM PEAK					Analysis Year	EXISTING 2011				

Volume and Timing Input														
			EB			WB			NB			SB		
			LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes			1	2	0	1	2	0	1	1	0	1	1	0
Lane group			L	TR		L	TR		L	TR		L	TR	
Volume (vph)			137	246	2	2	506	84	1	2	2	53	2	191
% Heavy veh			2	2	2	2	2	2	2	2	2	2	2	2
PHF			0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Actuated (P/A)			A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time			3.0	3.0		3.0	3.0		2.0	3.0		3.0	3.0	
Ext. eff. green			2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Arrival type			3	3		3	3		3	3		3	3	
Unit Extension			3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume			5	10	0	5	10	0	5		0	5		0
Lane Width			12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
Parking/Grade/Parking			N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr														
Bus stops/hr			0	0		0	0		0	0		0	0	
Unit Extension			3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Phasing	Excl. Left	Thru & RT	03			04		Excl. Left	Thru & RT		07		08	
Timing	G = 13.0	G = 42.0	G =			G =		G = 8.0		G = 19.1		G =		G =
	Y = 4.2	Y = 5.3	Y =			Y =		Y = 4.2		Y = 4.2		Y =		Y =
Duration of Analysis (hrs) = 0.25									Cycle Length C = 100.0					

Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	149	269		2	641		1	4		58	210	
Lane group cap.	212	1452		212	1416		142	312		124	287	
v/c ratio	0.70	0.19		0.01	0.45		0.01	0.01		0.47	0.73	
Green ratio	0.12	0.41		0.12	0.41		0.08	0.18		0.07	0.18	
Unif. delay d1	42.3	18.8		38.8	21.4		42.3	33.6		44.7	38.7	
Delay factor k	0.27	0.11		0.11	0.11		0.11	0.11		0.11	0.29	
Increm. delay d2	10.0	0.1		0.0	0.2		0.0	0.0		2.8	9.2	
PF factor	1.000	1.000		1.000	1.000		1.000	1.000		1.000	1.000	
Control delay	52.3	18.9		38.8	21.6		42.4	33.6		47.5	47.9	
Lane group LOS	D	B		D	C		D	C		D	D	
Apprch. delay	30.8			21.7			35.4			47.8		
Approach LOS	C			C			D			D		
Intersec. delay	29.8			Intersection LOS						C		

19-PM
EX

SHORT REPORT													
General Information						Site Information							
Analyst	USAI					Intersection	LAKE BLVD.@THUNDER DR.						
Agency or Co.	USAI					Area Type	All other areas						
Date Performed	08/29/12					Jurisdiction	OCEANSIDE-INT.#19						
Time Period	PM PEAK					Analysis Year	EXISTING 2011						
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	1	2	0	1	2	0	1	1	0	1	1	0	
Lane group	L	TR		L	TR		L	TR		L	TR		
Volume (vph)	252	534	5	5	288	99	1	2	6	124	3	133	
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2	
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0		
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0		
Arrival type	3	3		3	3		3	3		3	3		
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0		
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5		0	5		0	
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0		0	0		0	0		0	0		
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0		
Phasing	Excl. Left	EW Perm	Thru & RT	04			Excl. Left	Thru & RT	07			08	
Timing	G = 4.0	G = 15.0	G = 40.0	G =			G = 13.0	G = 14.8	G =			G =	
	Y = 4.2	Y = 5.3	Y = 5.3	Y =			Y = 4.2	Y = 4.2	Y =			Y =	
Duration of Analysis (hrs) = 0.25						Cycle Length C = 110.0							
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	274	585		5	421		1	9		135	148		
Lane group cap.	357	1909		115	1198		193	206		193	199		
v/c ratio	0.77	0.31		0.04	0.35		0.01	0.04		0.70	0.74		
Green ratio	0.20	0.54		0.20	0.35		0.11	0.13		0.11	0.13		
Unif. delay d1	41.5	14.0		35.6	26.2		43.7	42.3		47.3	46.4		
Delay factor k	0.32	0.11		0.11	0.11		0.11	0.11		0.27	0.30		
Increm. delay d2	9.7	0.1		0.2	0.2		0.0	0.1		10.7	14.0		
PF factor	1.000	1.000		1.000	1.000		1.000	1.000		1.000	1.000		
Control delay	51.2	14.1		35.8	26.4		43.7	42.4		57.9	60.4		
Lane group LOS	D	B		D	C		D	D		E	E		
Apprch. delay	25.9			26.5			42.5			59.3			
Approach LOS	C			C			D			E			
Intersec. delay	32.1			Intersection LOS						C			

SHORT REPORT												
General Information							Site Information					
Analyst	USAI						COLLEGE BLVD. @					
Agency or Co.	USAI						WARING RD.					
Date Performed	08/28/12						All other areas					
Time Period	AM PEAK						OCEANSIDE-INT#20					
							Analysis Year					
							EXISTING/NO PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	1	1	1	1	0	2	2	1	1	2	1
Lane group		LT	R	L	TR		L	T	R	L	T	R
Volume (vph)	25	32	178	107	47	43	436	661	195	71	1221	138
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time		2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Ext. eff. green		2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Arrival type		4	4	4	4		5	5	5	5	5	5
Unit Extension		3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Ped/Bike/RTOR Volume	5	5	0	5	5	0	5	5	0	5	5	0
Lane Width		12.0	12.0	12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr		0	0	0	0		0	0	0	0	0	0
Unit Extension		3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Phasing	EB Only	WB Only	03	04	Excl. Left	Thru & RT	07	08				
Timing	G = 14.0	G = 7.0	G =	G =	G = 15.1	G = 44.0	G =	G =				
	Y = 4.6	Y = 4	Y =	Y =	Y = 4.6	Y = 6.7	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 100.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate		62	193	116	98		474	718	212	77	1327	150
Lane group cap.		254	449	121	118		519	1561	676	267	1561	684
v/c ratio		0.24	0.43	0.96	0.83		0.91	0.46	0.31	0.29	0.85	0.22
Green ratio		0.14	0.29	0.07	0.07		0.15	0.44	0.44	0.15	0.44	0.44
Unif. delay d1		38.3	28.7	46.4	45.9		41.8	19.7	18.2	37.7	25.0	17.4
Delay factor k		0.11	0.11	0.47	0.37		0.43	0.11	0.11	0.11	0.38	0.11
Increm. delay d2		0.5	0.7	68.7	37.0		20.7	0.2	0.3	0.6	4.7	0.2
PF factor		1.000	0.993	1.000	1.000		0.881	0.476	0.476	0.881	0.476	0.476
Control delay		38.8	29.2	115.1	82.9		57.5	9.6	8.9	33.8	16.6	8.4
Lane group LOS		D	C	F	F		E	A	A	C	B	A
Apprch. delay	31.5			100.4			25.7			16.7		
Approach LOS	C			F			C			B		
Intersec. delay	26.7			Intersection LOS						C		

SHORT REPORT												
General Information							Site Information					
Analyst	USAI						COLLEGE BLVD.@					
Agency or Co.	USAI						WARING RD.					
Date Performed	08/28/12						All other areas					
Time Period	PM PEAK						OCEANSIDE-INT#20PM					
							Analysis Year					
							EXISTING/NO PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	1	1	1	1	0	2	2	1	1	2	1
Lane group		LT	R	L	TR		L	T	R	L	T	R
Volume (vph)	103	54	386	129	51	116	376	1266	164	68	865	78
% Heavy veh	1	1	1	1	1	1	1	2	1	1	2	1
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time		2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Ext. eff. green		2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Arrival type		4	4	4	4		5	5	5	5	5	5
Unit Extension		3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Ped/Bike/RTOR Volume	5	5	0	5	5	0	5	5	0	5	5	0
Lane Width		12.0	12.0	12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr		0	0	0	0		0	0	0	0	0	0
Unit Extension		3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Phasing	EB Only	WB Only	03		04		Excl. Left	NB Only	Thru & RT		08	
Timing	G = 12.0	G = 10.0	G =		G =		G = 10.0	G = 11.1	G = 42.0		G =	
	Y = 4.6	Y = 4	Y =		Y =		Y = 4.6	Y = 5	Y = 6.7		Y =	
Duration of Analysis (hrs) = 0.25							Cycle Length C = 110.0					
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate		171	420	140	181		409	1376	178	74	940	85
Lane group cap.		197	532	160	149		811	1873	821	162	1354	599
v/c ratio		0.87	0.79	0.88	1.21		0.50	0.73	0.22	0.46	0.69	0.14
Green ratio		0.11	0.34	0.09	0.09		0.23	0.53	0.53	0.09	0.38	0.38
Unif. delay d1		48.2	32.6	49.4	50.0		36.6	20.0	13.8	47.4	28.6	22.2
Delay factor k		0.40	0.34	0.40	0.50		0.11	0.29	0.11	0.11	0.26	0.11
Increm. delay d2		31.3	7.9	37.9	142.9		0.5	1.5	0.1	2.0	1.6	0.1
PF factor		1.000	0.950	1.000	1.000		0.797	0.254	0.254	0.933	0.588	0.588
Control delay		79.5	38.8	87.3	192.9		29.7	6.6	3.6	46.3	18.4	13.2
Lane group LOS		E	D	F	F		C	A	A	D	B	B
Apprch. delay	50.6			146.8			11.2			19.9		
Approach LOS	D			F			B			B		
Intersec. delay	30.4			Intersection LOS						C		

21 AM
EX

SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	MARRON RD.@QUARRY CREEK CTR.					
Agency or Co.	USAI					Area Type	All other areas					
Date Performed	06/03/12					Jurisdiction	OCEANSIDE					
Time Period	AM PEAK					Analysis Year	EXISTING					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	2	0	2	2	1	0	1	1	1	1	1
Lane group	L	TR		L	T	R		LTR	R	L	LT	R
Volume (vph)	0	15	0	160	16	144	0	5	74	135	5	0
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0
Ext. eff. green	2.0	2.0		2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0
Arrival type	3	3		3	3	3		3	3	3	3	3
Unit Extension	3.0	3.0		3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5	10	0
Lane Width	12.0	12.0		12.0	12.0	12.0		12.0	12.0	12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0	0		0	0	0	0	0
Unit Extension	3.0	3.0		3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0
Phasing	Excl. Left	Thru & RT	03	04	NB Only	SB Only	07	08				
Timing	G = 10.0	G = 20.0	G =	G =	G = 10.0	G = 10.0	G =	G =				
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 5	Y =	Y =				
Duration of Analysis (hrs) = 0.25			Cycle Length C = 70.0									
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	0	16		174	17	157		5	80	118	34	0
Lane group cap.	491	1013		491	1013	663		266	212	248	251	218
v/c ratio	0.00	0.02		0.35	0.02	0.24		0.02	0.38	0.48	0.14	0.00
Green ratio	0.14	0.29		0.14	0.29	0.43		0.14	0.14	0.14	0.14	0.14
Unif. delay d1	25.7	17.9		27.1	17.9	12.7		25.8	27.2	27.6	26.2	25.7
Delay factor k	0.11	0.11		0.11	0.11	0.11		0.11	0.11	0.11	0.11	0.11
Increm. delay d2	0.0	0.0		0.4	0.0	0.2		0.0	1.1	1.4	0.2	0.0
PF factor	1.000	1.000		1.000	1.000	1.000		1.000	1.000	1.000	1.000	1.000
Control delay	25.7	17.9		27.5	17.9	12.9		25.8	28.3	29.0	26.5	25.7
Lane group LOS	C	B		C	B	B		C	C	C	C	C
Apprch. delay	17.9			20.5			28.2			28.5		
Approach LOS	B			C			C			C		
Intersec. delay	23.5			Intersection LOS						C		

21 PM
EX

SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	MARRON RD.@QUARRY CREEK CTR.					
Agency or Co.	USAI					Area Type	All other areas					
Date Performed	06/03/12					Jurisdiction	OCEANSIDE					
Time Period	PM PEAK					Analysis Year	EXISTING 2011					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	2	0	2	2	1	0	1	1	1	1	1
Lane group	L	TR		L	T	R		LTR	R	L	LT	R
Volume (vph)	0	55	0	338	33	306	0	5	275	491	5	0
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0
Ext. eff. green	2.0	2.0		2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0
Arrival type	3	3		3	3	3		3	3	3	3	3
Unit Extension	3.0	3.0		3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	25	5	10	0
Lane Width	12.0	12.0		12.0	12.0	12.0		12.0	12.0	12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0	0		0	0	0	0	0
Unit Extension	3.0	3.0		3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0
Phasing	Excl. Left	Thru & RT	03	04	NB Only	SB Only	07	08				
Timing	G = 15.0	G = 15.0	G =	G =	G = 18.0	G = 32.0	G =	G =				
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 5	Y =	Y =				
Duration of Analysis (hrs) = 0.25			Cycle Length C = 100.0									
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	0	60		367	36	333		138	139	320	219	0
Lane group cap.	516	532		516	532	725		272	270	563	565	495
v/c ratio	0.00	0.11		0.71	0.07	0.46		0.51	0.51	0.57	0.39	0.00
Green ratio	0.15	0.15		0.15	0.15	0.47		0.18	0.18	0.32	0.32	0.32
Unif. delay d1	36.1	36.7		40.4	36.5	17.9		37.0	37.1	28.3	26.4	23.1
Delay factor k	0.11	0.11		0.27	0.11	0.11		0.12	0.12	0.16	0.11	0.11
Increm. delay d2	0.0	0.1		4.6	0.1	0.5		1.6	1.7	1.4	0.4	0.0
PF factor	1.000	1.000		1.000	1.000	1.000		1.000	1.000	1.000	1.000	1.000
Control delay	36.1	36.8		45.0	36.5	18.4		38.6	38.8	29.6	26.8	23.1
Lane group LOS	D	D		D	D	B		D	D	C	C	C
Apprch. delay	36.8			32.5			38.7			28.5		
Approach LOS	D			C			D			C		
Intersec. delay	32.4			Intersection LOS						C		

TABLE 3-3
Existing Intersection Levels of Service

Number	Intersection	City	AM Peak Hour		PM Peak Hour	
			ICU / Delay (1)	LOS	ICU / Delay (1)	LOS
1	El Camino Real / Vista Way	OS	33.5	C	49.0	D
2	El Camino Real / SR-78 WB Ramps	OS	21.4	C	26.7	C
3	El Camino Real / SR-78 EB Ramps	OS	16.7	B	36.3	C
4	El Camino Real / Plaza Dr.	CB	0.34 (1)	A	0.65 (1)	A
5	El Camino Real / Marron Rd.	CB	0.34 (1)	A	0.52 (1)	A
6	El Camino Real / Carlsbad Village Dr.	CB	0.45 (1)	A	0.55 (1)	A
7	Vista Way / Rancho Del Oro Rd.	OS	35.7	D	42.8	D
8	Rancho Del Oro Rd. / SR-78 WB Ramps	OS	N/A	N/A	N/A	N/A
9	Rancho Del Oro Rd. / SR-78 EB Ramps	OS	N/A	N/A	N/A	N/A
10	Marron Rd. / Rancho Del Oro Rd.	OS	N/A	N/A	N/A	N/A
11	College Blvd. / Vista Way	OS	34.7	C	40.3	D
12	College Blvd. / SR-78 EB Off Ramp	OS	8.2	A	8.7	A
13	College Blvd. / Plaza Dr.	OS	17.7	B	30.7	C
14	College Blvd. / Marron Rd. / Lake Blvd.	OS	27.7	C	29.6	C
15	College Blvd. / Carlsbad Village Dr.	CB	0.69 (1)	B	0.48 (1)	A
16	College Blvd. / Cannon Rd.	CB	N/A	N/A	N/A	N/A
17	Vista Way / SR-78 WB Ramps	OS	29.8	C	32.8	C
18	Plaza Dr. / SR-78 EB Ramps	OS	14.8	B	26.7	C
19	Lake Blvd. / Thunder Dr.	OS	29.8	C	32.1	C
20	College Blvd. / Waring Rd.	OS	26.7	C	30.4	C
21	Marron Rd. / Quarry Creek Ctr.	OS	23.5	C	32.4	C

Notes:

(1) ICU used in Carlsbad for existing conditions only.

N/A = Not Built

City:

OS = Oceanside

CB = Carlsbad

LOS	ICU	Seconds Delay
A	0.00 - 0.60	0.00 - 10.0
B	0.61 - 0.70	10.1 - 20.0
C	0.71 - 0.80	20.1 - 35.0
D	0.81 - 0.90	35.1 - 55.0
E	0.91 - 1.00	55.1 - 80.0
F	Over 1.00	Over 80.0

SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	EL CAMINO REAL@ VISTA WAY					
Agency or Co.	USAI					Area Type	All other areas					
Date Performed	08/22/12					Jurisdiction	OCEANSIDE-INT.#1					
Time Period	AM PEAK					Analysis Year	EXISTING/WITH PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	2	1	2	2	0	2	3	0	2	3	0
Lane group	L	T	R	L	TR		L	TR		L	TR	
Volume (vph)	22	46	65	396	110	71	106	814	273	78	1644	57
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Ext. eff. green	3.0	2.0	1.2	2.0	2.0		1.2	5.0		0.8	5.8	
Arrival type	3	3	3	3	3		5	5		5	5	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5	10	0
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0		0	0		0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Phasing	Excl. Left	WB Only	Thru & RT	04		Excl. Left	Thru & RT	07		08		
Timing	G = 10.3	G = 13.5	G = 17.8	G =		G = 15.5	G = 48.6	G =		G =		
	Y = 5.2	Y = 5.6	Y = 5.6	Y =		Y = 5.2	Y = 6.3	Y =		Y =		
Duration of Analysis (hrs) = 0.25						Cycle Length C = 133.6						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	24	50	71	430	197		115	1182		85	1849	
Lane group cap.	136	446	426	720	888		352	1839		342	1941	
v/c ratio	0.18	0.11	0.17	0.60	0.22		0.33	0.64		0.25	0.95	
Green ratio	0.08	0.13	0.28	0.21	0.27		0.10	0.38		0.10	0.38	
Unif. delay d1	57.7	51.8	36.5	47.7	38.0		55.7	34.1		55.5	39.9	
Delay factor k	0.11	0.11	0.11	0.19	0.11		0.11	0.22		0.11	0.46	
Increm. delay d2	0.6	0.1	0.2	1.4	0.1		0.5	0.8		0.4	11.3	
PF factor	1.000	1.000	1.000	1.000	1.000		0.924	0.594		0.926	0.583	
Control delay	58.3	51.9	36.7	49.1	38.1		52.0	21.0		51.8	34.6	
Lane group LOS	E	D	D	D	D		D	C		D	C	
Apprch. delay	45.5			45.6			23.7			35.3		
Approach LOS	D			D			C			D		
Intersec. delay	33.6			Intersection LOS						C		

SHORT REPORT													
General Information							Site Information						
Analyst	USAI						Intersection						EL CAMINO REAL@ VISTA WAY
Agency or Co.	USAI						Area Type						All other areas
Date Performed	08/15/12						Jurisdiction						OCEANSIDE-INT.#1
Time Period	PM PEAK						Analysis Year						EXISTING/WITH PROJECT
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	1	2	1	2	2	0	2	3	0	2	3	0	
Lane group	L	T	R	L	TR		L	TR		L	TR		
Volume (vph)	177	312	354	345	207	133	426	1690	524	168	1213	162	
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2	
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0		
Ext. eff. green	3.0	2.0	1.2	2.0	2.0		1.2	5.0		0.8	5.8		
Arrival type	3	3	3	3	3		5	5		5	5		
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0		
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5	10	0	
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0	0	0	0		0	0		0	0		
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0		
Phasing	Excl. Left	Thru & RT	03		04		Excl. Left	NB Only	Thru & RT	08			
Timing	G = 16.0	G = 22.3	G =		G =		G = 12.2	G = 12.8	G = 41.7	G =			
	Y = 5.2	Y = 5.6	Y =		Y =		Y = 5.2	Y = 6.3	Y = 6.3	Y =			
Duration of Analysis (hrs) = 0.25						Cycle Length C = 133.6							
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	192	339	385	375	370		463	2407		183	1494		
Lane group cap.	212	566	650	386	525		731	2290		257	1656		
v/c ratio	0.91	0.60	0.59	0.97	0.70		0.63	1.05		0.71	0.90		
Green ratio	0.12	0.16	0.42	0.11	0.16		0.21	0.47		0.07	0.33		
Unif. delay d1	58.1	52.2	29.8	59.1	53.2		47.9	35.4		60.4	42.5		
Delay factor k	0.43	0.19	0.18	0.48	0.27		0.21	0.50		0.28	0.42		
Increm. delay d2	37.1	1.8	1.5	38.2	4.3		1.8	33.9		8.9	7.3		
PF factor	1.000	1.000	1.000	1.000	1.000		0.820	0.409		0.946	0.667		
Control delay	95.2	53.9	31.3	97.3	57.4		41.1	48.4		66.1	35.6		
Lane group LOS	F	D	C	F	E		D	D		E	D		
Apprch. delay	53.0			77.5			47.2			38.9			
Approach LOS	D			E			D			D			
Intersec. delay	49.5			Intersection LOS						D			

SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	EL CAMINO REAL@ SR-78WB RAMPS					
Agency or Co.	USAI					Area Type	All other areas					
Date Performed	08/22/12					Jurisdiction	OCEANSIDE-INT.#2					
Time Period	AM PEAK					Analysis Year	EXISTING PLUS PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	0	0	1	1	1	2	3	0	0	3	1
Lane group				L	LTR	R	L	T			T	R
Volume (vph)				344	0	399	125	751			1659	438
% Heavy veh				2	2	2	2	2			2	2
PHF				0.92	0.92	0.92	0.92	0.92			0.92	0.92
Actuated (P/A)				A	A	A	A	A			A	A
Startup lost time				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Ext. eff. green				2.0	2.0	2.0	2.0	2.0			2.0	2.0
Arrival type				3	3	3	5	5			5	5
Unit Extension				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Ped/Bike/RTOR Volume	10			10		75				10	5	250
Lane Width				12.0	12.0	12.0	12.0	12.0			12.0	12.0
Parking/Grade/Parking	N		N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr				0	0	0	0	0			0	0
Unit Extension				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Phasing	WB Only	02	03	04	NB Only	Thru & RT	07	08				
Timing	G = 31.0	G =	G =	G =	G = 13.7	G = 39.0	G =	G =				
	Y = 5.1	Y =	Y =	Y =	Y = 4.2	Y = 7	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 100.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate				262	218	246	136	816			1803	204
Lane group cap.				531	505	475	436	2836			1928	588
v/c ratio				0.49	0.43	0.52	0.31	0.29			0.94	0.35
Green ratio				0.30	0.30	0.30	0.13	0.56			0.38	0.38
Unif. delay d1				28.8	28.1	29.0	39.7	11.6			29.8	22.1
Delay factor k				0.11	0.11	0.12	0.11	0.11			0.45	0.11
Increm. delay d2				0.7	0.6	1.0	0.4	0.1			9.2	0.4
PF factor				1.000	1.000	1.000	0.903	0.155			0.591	0.591
Control delay				29.5	28.7	30.0	36.2	1.9			26.8	13.5
Lane group LOS				C	C	C	D	A			C	B
Apprch. delay				29.4			6.8			25.5		
Approach LOS				C			A			C		
Intersec. delay	21.4			Intersection LOS						C		

SHORT REPORT													
General Information						Site Information							
Analyst	USAI					Intersection	EL CAMINO REAL@ SR-78WB RAMPS						
Agency or Co.	USAI					Area Type	All other areas						
Date Performed	08/22/12					Jurisdiction	OCEANSIDE-INT.#2						
Time Period	PM PEAK					Analysis Year	EXISTING WITH PROJECT						
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	0	0	0	1	1	1	2	3	0	0	3	1	
Lane group				L	LTR	R	L	T			T	R	
Volume (vph)				434	10	710	162	1884			1406	475	
% Heavy veh				2	2	2	2	2			2	2	
PHF				0.92	0.92	0.92	0.92	0.92			0.92	0.92	
Actuated (P/A)				A	A	A	A	A			A	A	
Startup lost time				3.0	3.0	3.0	3.0	3.0			3.0	3.0	
Ext. eff. green				2.0	2.0	2.0	2.0	2.0			2.0	2.0	
Arrival type				3	3	3	5	5			5	5	
Unit Extension				3.0	3.0	3.0	3.0	3.0			3.0	3.0	
Ped/Bike/RTOR Volume	10			10		0				10	5	0	
Lane Width				12.0	12.0	12.0	12.0	12.0			12.0	12.0	
Parking/Grade/Parking	N		N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr				0	0	0	0	0			0	0	
Unit Extension				3.0	3.0	3.0	3.0	3.0			3.0	3.0	
Phasing	WB Only	02	03	04	NB Only	Thru & RT	07	08					
Timing	G = 31.0	G =	G =	G =	G = 13.7	G = 39.0	G =	G =					
	Y = 5.1	Y =	Y =	Y =	Y = 4.2	Y = 7	Y =	Y =					
Duration of Analysis (hrs) = 0.25						Cycle Length C = 100.0							
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate				349	366	540	176	2048			1528	516	
Lane group cap.				531	497	475	436	2836			1928	588	
v/c ratio				0.66	0.74	1.14	0.40	0.72			0.79	0.88	
Green ratio				0.30	0.30	0.30	0.13	0.56			0.38	0.38	
Unif. delay d1				30.5	31.4	35.0	40.2	16.3			27.5	28.8	
Delay factor k				0.23	0.29	0.50	0.11	0.28			0.34	0.40	
Increm. delay d2				3.0	5.7	84.5	0.6	0.9			2.4	14.1	
PF factor				1.000	1.000	1.000	0.903	0.155			0.591	0.591	
Control delay				33.5	37.1	119.5	36.9	3.5			18.6	31.2	
Lane group LOS				C	D	F	D	A			B	C	
Apprch. delay				71.6			6.1			21.8			
Approach LOS				E			A			C			
Intersec. delay	26.8			Intersection LOS						C			

SHORT REPORT													
General Information						Site Information							
Analyst	USAI					Intersection	EL CAMINO REAL@ SR-78EB RAMPS						
Agency or Co.	USAI					Area Type	All other areas						
Date Performed	08/22/12					Jurisdiction	OCEANSIDE-INT#3						
Time Period	AM PEAK					Analysis Year	EXISTING WITH PROJECT						
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	2	0	1	0	0	0	0	3	1	2	3	0	
Lane group	L		R					T	R	L	T		
Volume (vph)	337		134					563	320	504	1463		
% Heavy veh	2		2					2	2	2	2		
PHF	0.92		0.92					0.92	0.92	0.92	0.92		
Actuated (P/A)	A		A					A	A	A	A		
Startup lost time	3.0		3.0					3.0	3.0	3.0	3.0		
Ext. eff. green	2.0		2.0					2.0	2.0	2.0	2.0		
Arrival type	3		3					5	5	5	5		
Unit Extension	3.0		3.0					3.0	3.0	3.0	3.0		
Ped/Bike/RTOR Volume	5		0	5			5	10	0				
Lane Width	12.0		12.0					12.0	12.0	12.0	12.0		
Parking/Grade/Parking	N	0	N	N		N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0		0					0	0	0	0		
Unit Extension	3.0		3.0					3.0	3.0	3.0	3.0		
Phasing	EB Only	02	03	04	SB Only	Thru & RT	07	08					
Timing	G = 20.0	G =	G =	G =	G = 38.0	G = 50.2	G =	G =					
	Y = 5.1	Y =	Y =	Y =	Y = 4.7	Y = 7	Y =	Y =					
Duration of Analysis (hrs) = 0.25						Cycle Length C = 125.0							
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	366		146				612	348	548	1590			
Lane group cap.	522		241				1997	610	1017	3730			
v/c ratio	0.70		0.61				0.31	0.57	0.54	0.43			
Green ratio	0.15		0.15				0.39	0.39	0.30	0.74			
Unif. delay d1	50.3		49.5				26.1	29.6	36.9	6.4			
Delay factor k	0.27		0.19				0.11	0.16	0.14	0.11			
Increm. delay d2	4.2		4.3				0.1	1.3	0.6	0.1			
PF factor	1.000		1.000				0.567	0.567	0.720	0.189			
Control delay	54.5		53.8				14.9	18.1	27.1	1.3			
Lane group LOS	D		D				B	B	C	A			
Apprch. delay	54.3						16.1			7.9			
Approach LOS	D						B			A			
Intersec. delay	16.7			Intersection LOS						B			

SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection EL CAMINO REAL@ SR-78EB RAMPS						
Agency or Co.	USAI					Area Type All other areas						
Date Performed	08/22/12					Jurisdiction OCEANSIDE-INT#3						
Time Period	PM PEAK					Analysis Year EXISTING WITH PROJECT						
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	0	1	0	0	0	0	3	1	2	3	0
Lane group	L		R					T	R	L	T	
Volume (vph)	614		251					1388	492	508	1334	
% Heavy veh	2		2					2	2	2	2	
PHF	0.92		0.92					0.92	0.92	0.92	0.92	
Actuated (P/A)	A		A					A	A	A	A	
Startup lost time	3.0		3.0					3.0	3.0	3.0	3.0	
Ext. eff. green	2.0		2.0					2.0	2.0	2.0	2.0	
Arrival type	3		3					5	5	5	5	
Unit Extension	3.0		3.0					3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	5		0	5			5	10	80			
Lane Width	12.0		12.0					12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N		N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0		0					0	0	0	0	
Unit Extension	3.0		3.0					3.0	3.0	3.0	3.0	
Phasing	EB Only	02	03	04	SB Only	Thru & RT	07	08				
Timing	G = 22.0	G =	G =	G =	G = 32.0	G = 54.2	G =	G =				
	Y = 5.1	Y =	Y =	Y =	Y = 4.7	Y = 7	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 125.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	667		273					1509	448	552	1450	
Lane group cap.	577		266					2159	660	852	3649	
v/c ratio	1.16		1.03					0.70	0.68	0.65	0.40	
Green ratio	0.17		0.17					0.43	0.43	0.25	0.72	
Unif. delay d1	52.0		52.0					29.4	29.0	42.1	6.9	
Delay factor k	0.50		0.50					0.27	0.25	0.23	0.11	
Increm. delay d2	88.5		62.1					1.0	2.8	1.7	0.1	
PF factor	1.000		1.000					0.506	0.506	0.780	0.178	
Control delay	140.5		114.1					15.9	17.5	34.6	1.3	
Lane group LOS	F		F					B	B	C	A	
Apprch. delay	132.9						16.2			10.5		
Approach LOS	F						B			B		
Intersec. delay	36.3			Intersection LOS						D		

A-A
EX
+
P-A

El Camino Real at Plaza Drive

Lane Configuration for Intersection Capacity Utilization

Page 2 of 3

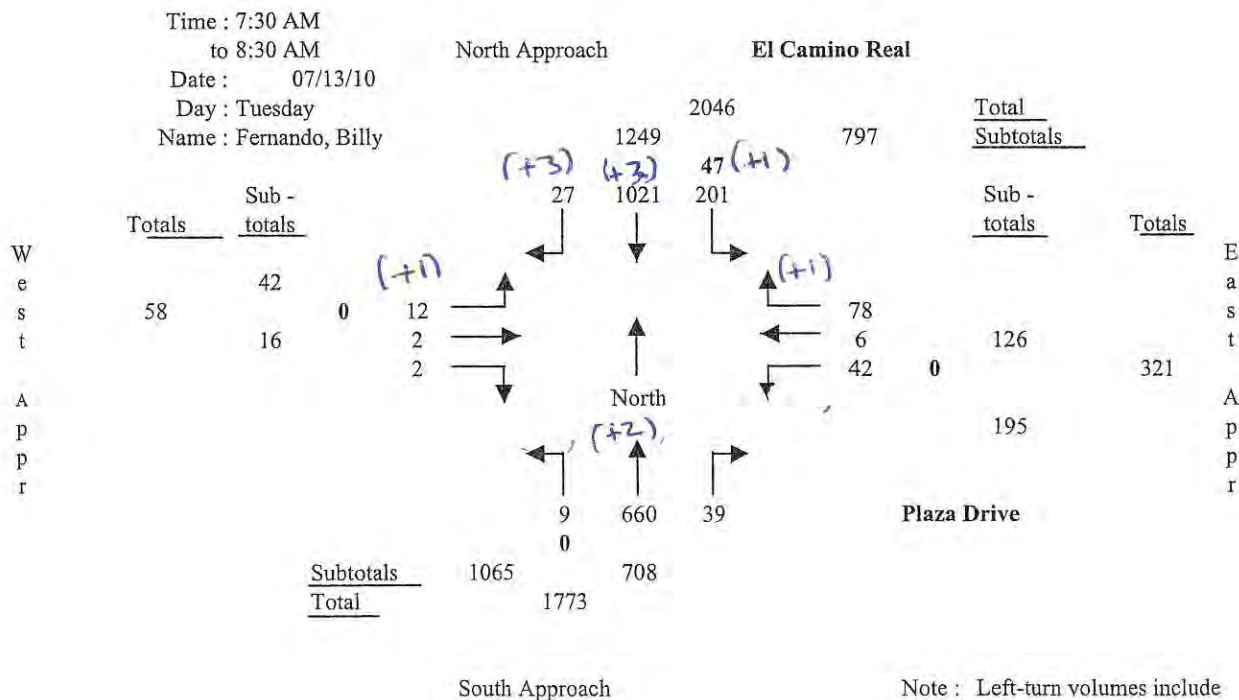
Pk. Hr. Time Period :			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
7:30 AM to 8:30 AM			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane	Inside	1	1			1			1					
Config -	(left)	2	1			1			1	1		1	1	
urations		3		1			1				1			1
		4		1			1							
		5		1	1		1	1						
		6												
	Outside	7												
Free-flow														
Lane Settings			2	3	0	2	3	0	2	0	1	0	1	1
Capacity			3600	6000	0	3600	6000	0	3800	0	1800	0	2000	1800
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					Y									
Efficiency Lost Factor			0.10	(+2)		(+3)	(+3)	(+1)	(+1)				(+1)	
Hourly Volume			9	660	39	201	1021	27	12	2	2	42	6	78
Adjusted Hourly Volume			9	699	0	201	1048	0	16	0	4	0	48	126
Utilization Factor			0.00	0.12	0.00	0.06	0.17	0.00	0.00	0.00	0.00	0.00	0.02	0.07
Critical Factors			0.00	✓			0.17		0.00	✓				0.07

ICU Ratio = 0.34
(0.35)

LOS = A
(LOS = A)

Turning Movements at Intersection of :

El Camino Real and Plaza Drive



$$\begin{array}{r} A-P \\ \text{EX} \\ + \\ P-A \end{array}$$

Page 3 of 3

ICU Ratio = 0.65 (0.65) LOS = B (LOS = B)

El Camino Real and Plaza Drive

Note : Left-turn volumes include U-turns. U-turns in bold.

5-A
EX
+
PA

El Camino Real at Marron Road

Lane Configuration for Intersection Capacity Utilization

Page 2 of 3

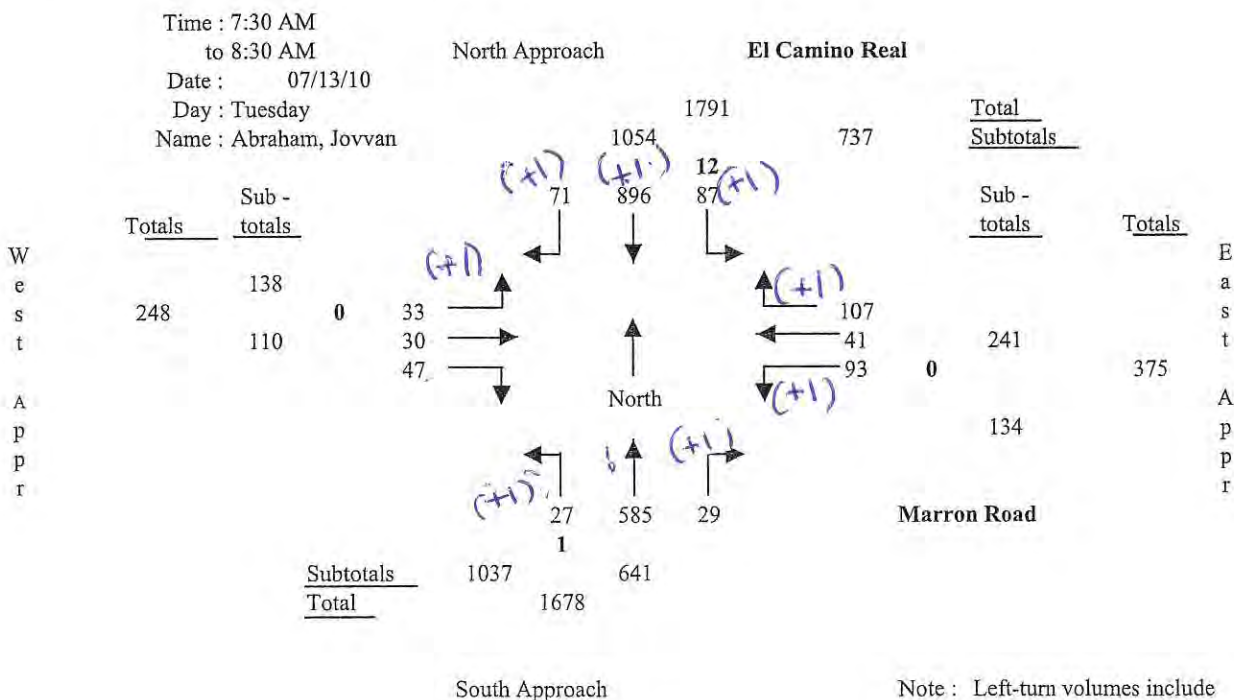
Pk. Hr. Time Period :		South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
7:30 AM to 8:30 AM		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Config - urations	Inside	1	1		1								
	(left)	2	1		1			1			1		
		3		1		1			1			1	
		4		1		1			1	1		1	1
		5		1		1	1						
		6											
	Outside Free-flow	7											
Lane Settings		2	3	0	2	3	0	1	2	0	1	2	0
Capacity		3600	6000	0	3600	6000	0	1800	4000	0	1800	4000	0
Are the North/South phases split (Y/N)?				N									
Are the East/West phases split (Y/N)?				N									
Efficiency Lost Factor		0.10											
Hourly Volume		27	585	29	87	896	71	33	30	47	93	41	107
Adjusted Hourly Volume		27	614	0	87	967	0	33	77	0	93	148	0
Utilization Factor		0.01	0.10	0.00	0.02	0.16	0.00	0.02	0.02	0.00	0.05	0.04	0.00
Critical Factors		0.01				0.16			0.02		0.05		

ICU Ratio = 0.34 LOS = A

(0.34) (LOS = A)

Turning Movements at Intersection of :

El Camino Real and Marron Road



5-8
EX
+
P-4

Page 3 of 3

ICU Ratio = 0.52 ✓ LOS = A ✓
(0.52) (LOS = A)

El Camino Real and Marron Road

Note : Left-turn volumes include U-turns. U-turns in bold.

GA
EX
+
PA

El Camino Real at Carlsbad Village Drive

Lane Configuration for Intersection Capacity Utilization

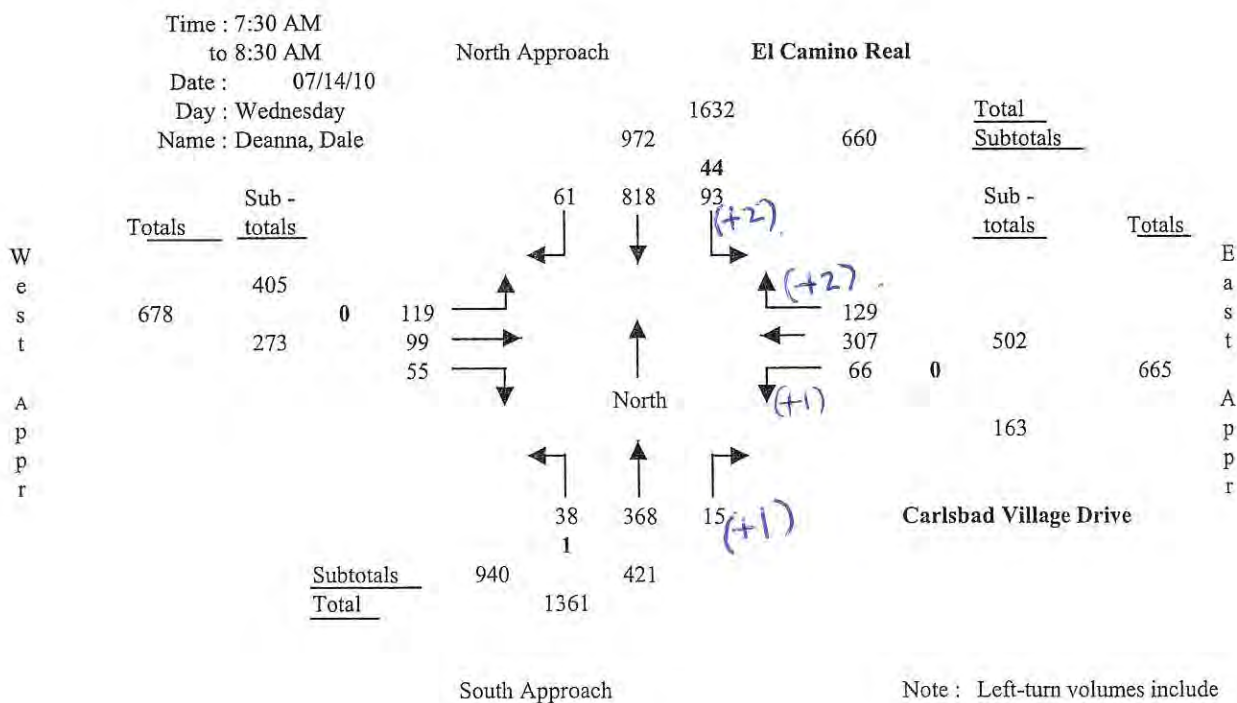
Page 2 of 3

Pk. Hr. Time Period :		South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
7:30 AM to 8:30 AM		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Configurations	Inside	1	1		1			1			1		
	(left)	2		1		1			1			1	
		3		1		1			1	1		1	1
		4		1	1								
		5											
		6											
	Outside Free-flow	7											
Lane Settings		1	3	0	1	3	0	1	2	0	1	2	0
Capacity		1800	6000	0	1800	6000	0	1800	4000	0	1800	4000	0
Are the North/South phases split (Y/N)?				N									
Are the East/West phases split (Y/N)?				N									
Efficiency Lost Factor		0.10											
Hourly Volume		38	368	15	93	818	61	119	99	55	66	307	129
Adjusted Hourly Volume		38	383	0	93	879	0	119	154	0	66	436	0
Utilization Factor		0.02	0.06	0.00	0.05	0.15	0.00	0.07	0.04	0.00	0.04	0.11	0.00
Critical Factors		0.02				0.15		0.07				0.11	

ICU Ratio = 0.45 ✓ LOS = A ✓
(0.45) (LOS = A)

Turning Movements at Intersection of :

El Camino Real and Carlsbad Village Drive



El Camino Real at Carlsbad Village Drive

Lane Configuration for Intersection Capacity Utilization

Page 3 of 3

6-8
EX
+P4

Pk. Hr. Time Period :			South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
4:45 PM to 5:45 PM			Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane	Inside	1	1			1			1			1		
Config -	(left)	2		1			1			1			1	
urations		3		1			1			1	1		1	1
		4		1	1		1	1						
		5												
		6												
	Outside	7												
Free-flow														
Lane Settings			1	3	0	1	3	0	1	2	0	1	2	0
Capacity			1800	6000	0	1800	6000	0	1800	4000	0	1800	4000	0
Are the North/South phases split (Y/N)?					N									
Are the East/West phases split (Y/N)?					N									
Efficiency Lost Factor			0.10			(+1)	(+2)					(+1)	(+2)	
Hourly Volume			105	1094	57	179	585	120	143	257	60	37	202	130
Adjusted Hourly Volume			105	1151	0	179	705	0	143	317	0	37	332	0
Utilization Factor			0.06	0.19	0.00	0.10	0.12	0.00	0.08	0.08	0.00	0.02	0.08	0.00
Critical Factors				0.19		0.10			0.08			0.08		

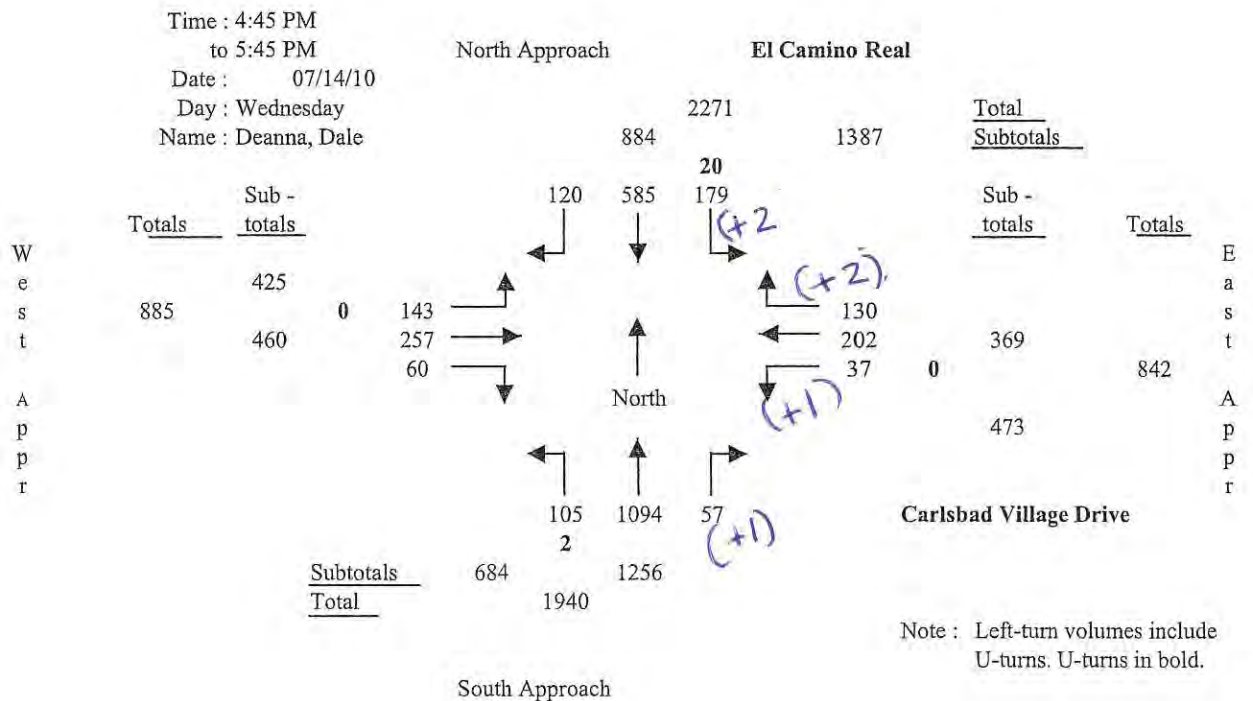
ICU Ratio = 0.55

LOS = A

(0.55) (LOS=A)

Turning Movements at Intersection of :

El Camino Real and Carlsbad Village Drive



7-AM
Fxp

SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection VISTA WAY@RANCHO DEL ORO RD.						
Agency or Co.	USAI					Area Type All other areas						
Date Performed	06/03/12					Jurisdiction OCEANSIDE						
Time Period	AM PEAK					Analysis Year EXISTING 2011 PLUS PROJECT						
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	2	0	1	2	0	1	1	0	1	1	1
Lane group	L	TR		L	TR		L	TR		L	TR	R
Volume (vph)	194	138	29	61	172	152	13	2	10	310	23	334
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	2.0
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	2.0
Arrival type	5	5		5	5		3	3		5	3	5
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5	10	0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0		0	0	0
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08				
Timing	G = 15.0	G = 20.0	G =	G =	G = 25.0	G = 20.0	G =	G =				
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 5	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 100.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	209	179		66	348		14	13		333	194	190
Lane group cap.	266	685		266	644		443	317		443	310	301
v/c ratio	0.79	0.26		0.25	0.54		0.03	0.04		0.75	0.63	0.63
Green ratio	0.15	0.20		0.15	0.20		0.25	0.20		0.25	0.20	0.20
Unif. delay d1	41.0	33.8		37.5	35.9		28.3	32.3		34.6	36.6	36.6
Delay factor k	0.33	0.11		0.11	0.14		0.11	0.11		0.31	0.21	0.21
Increm. delay d2	14.4	0.2		0.5	0.9		0.0	0.1		7.1	3.9	4.2
PF factor	0.882	0.833		0.882	0.833		1.000	1.000		0.778	1.000	0.833
Control delay	50.5	28.3		33.6	30.8		28.4	32.3		34.0	40.5	34.8
Lane group LOS	D	C		C	C		C	C		C	D	C
Apprch. delay	40.3			31.3			30.3			36.0		
Approach LOS	D			C			C			D		
Intersec. delay	35.7			Intersection LOS						D		

7-PM
EX
+P**SHORT REPORT**

General Information						Site Information					
Analyst	USAI					Intersection	VISTA WAY@RANCHO DEL ORO RD.				
Agency or Co.	USAI					Area Type	All other areas				
Date Performed	06/03/12					Jurisdiction	OCEANSIDE				
Time Period	PM PEAK					Analysis Year	EXISTING 2011 PLUS PROJECT				

Volume and Timing Input														
			EB			WB			NB			SB		
			LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes			1	2	0	1	2	0	1	1	0	1	1	1
Lane group			L	TR		L	TR		L	TR		L	TR	R
Volume (vph)			452	436	9	11	296	256	26	31	8	220	8	288
% Heavy veh			2	2	2	2	2	2	2	2	2	2	2	2
PHF			0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Actuated (P/A)			A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time			2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	2.0
Ext. eff. green			2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	2.0
Arrival type			5	5		5	5		3	3		5	3	5
Unit Extension			3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Ped/Bike/RTOR Volume			5	10	0	5	10	0	5	10	0	5	10	0
Lane Width			12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	12.0
Parking/Grade/Parking			N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr														
Bus stops/hr			0	0		0	0		0	0		0	0	0
Unit Extension			3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Phasing	Excl. Left	Thru & RT	03			04		Excl. Left	Thru & RT	07			08	
Timing	G = 30.0	G = 20.0	G =			G =		G = 15.0	G = 15.0	G =			G =	
	Y = 5	Y = 5	Y =			Y =		Y = 5	Y = 5	Y =			Y =	
Duration of Analysis (hrs) = 0.25									Cycle Length C = 100.0					

Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	471	463		11	575		27	40		229	149	159
Lane group cap.	531	707		531	644		266	269		266	226	223
v/c ratio	0.89	0.65		0.02	0.89		0.10	0.15		0.86	0.66	0.71
Green ratio	0.30	0.20		0.30	0.20		0.15	0.15		0.15	0.15	0.15
Unif. delay d1	33.4	36.8		24.7	39.0		36.7	36.9		41.5	40.1	40.5
Delay factor k	0.41	0.23		0.11	0.42		0.11	0.11		0.39	0.23	0.28
Increm. delay d2	16.5	2.2		0.0	14.8		0.2	0.3		23.8	6.9	10.3
PF factor	0.714	0.833		0.714	0.833		1.000	1.000		0.882	1.000	0.882
Control delay	40.4	32.9		17.6	47.3		36.9	37.2		60.4	47.0	46.0
Lane group LOS	D	C		B	D		D	D		E	D	D
Apprch. delay	36.7			46.7			37.1			52.4		
Approach LOS	D			D			D			D		
Intersec. delay	43.4			Intersection LOS						D		

SHORT REPORT												
General Information							Site Information					
Analyst	USA/						COLLEGE BLVD.@ VISTA					
Agency or Co.	USA/						WAY					
Date Performed	08/28/12						Area Type					
Time Period	AM PEAK						All other areas					
							Jurisdiction					
							OCEANSIDE-INT#11					
							Analysis Year					
							EXISTING/WITH PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	2	1	2	2	0	1	3	1	2	3	0
Lane group	L	T	R	L	TR		L	T	R	L	TR	
Volume (vph)	44	121	405	452	150	226	166	639	693	46	1424	35
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Ext. eff. green	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Arrival type	5	5	5	5	5		5	5	5	5	5	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	5	5	0	5	5	123	5	5	0	5	5	0
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0		0	0	0	0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Phasing	Excl. Left	WB Only	Thru & RT	04			Excl. Left	Thru & RT	07			08
Timing	G = 4.0	G = 8.0	G = 7.0	G =			G = 9.5	G = 42.0	G =			G =
	Y = 5.6	Y = 5.6	Y = 6.4	Y =			Y = 5.6	Y = 6.3	Y =			Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 100.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	46	127	426	476	266		175	673	729	48	1536	
Lane group cap.	137	248	349	605	679		168	2131	814	327	2123	
v/c ratio	0.34	0.51	1.22	0.79	0.39		1.04	0.32	0.90	0.15	0.72	
Green ratio	0.04	0.07	0.23	0.18	0.21		0.09	0.42	0.52	0.09	0.42	
Unif. delay d1	46.7	44.9	38.5	39.4	34.3		45.3	19.4	21.4	41.5	24.2	
Delay factor k	0.11	0.12	0.50	0.33	0.11		0.50	0.11	0.42	0.11	0.28	
Increm. delay d2	1.5	1.8	122.4	6.8	0.4		80.9	0.1	12.5	0.2	1.2	
PF factor	0.972	0.950	0.802	0.858	0.827		0.930	0.517	0.269	0.930	0.517	
Control delay	46.9	44.4	153.3	40.6	28.7		122.9	10.1	18.3	38.8	13.7	
Lane group LOS	D	D	F	D	C		F	B	B	D	B	
Apprch. delay	122.1			36.4			26.4			14.5		
Approach LOS	F			D			C			B		
Intersec. delay	36.6			Intersection LOS						D		

SHORT REPORT												
General Information							Site Information					
Analyst	USAI						COLLEGE BLVD.@ VISTA WAY					
Agency or Co.	USAI						Area Type					
Date Performed	08/28/12						All other areas					
Time Period	PM PEAK						Jurisdiction					
							OCEANSIDE-INT#11					
							Analysis Year					
							EXISTING/WITH PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	2	1	2	2	0	1	3	1	2	3	0
Lane group	L	T	R	L	TR		L	T	R	L	TR	
Volume (vph)	118	201	394	452	341	343	299	1205	680	36	1200	92
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Ext. eff. green	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Arrival type	5	5	5	5	5		5	5	5	5	5	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	5	5	10	5	5	65	5	5	0	5	5	0
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0		0	0	0	0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Phasing	Excl. Left	WB Only	Thru & RT	04			Excl. Left	NB Only	Thru & RT	08		
Timing	G = 6.0	G = 16.0	G = 10.0	G =			G = 7.0	G = 5.0	G = 31.1	G =		
	Y = 5.6	Y = 5.6	Y = 6.3	Y =			Y = 5.6	Y = 5.6	Y = 6.2	Y =		
Duration of Analysis (hrs) = 0.25						Cycle Length C = 110.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	124	212	404	476	652		315	1268	716	38	1360	
Lane group cap.	187	322	324	862	941		283	1924	1068	219	1417	
v/c ratio	0.66	0.66	1.25	0.55	0.69		1.11	0.66	0.67	0.17	0.96	
Green ratio	0.05	0.09	0.21	0.25	0.29		0.16	0.38	0.69	0.06	0.28	
Unif. delay d1	51.0	48.3	43.3	35.8	34.9		46.2	28.3	10.0	48.8	38.8	
Delay factor k	0.24	0.23	0.50	0.15	0.26		0.50	0.23	0.24	0.11	0.47	
Increm. delay d2	8.5	4.9	134.3	0.8	2.2		87.4	0.8	1.6	0.4	15.4	
PF factor	0.962	0.933	0.821	0.777	0.731		0.873	0.593	0.159	0.955	0.737	
Control delay	57.6	50.0	169.9	28.6	27.7		127.7	17.6	3.2	46.9	44.0	
Lane group LOS	E	D	F	C	C		F	B	A	D	D	
Apprch. delay	116.7			28.1			28.2			44.1		
Approach LOS	F			C			C			D		
Intersec. delay	43.9			Intersection LOS						D		

SHORT REPORT												
General Information						Site Information						
Analyst	USAI					COLLEGE BLVD.@ SR-78EB OFF-RAM						
Agency or Co.	USAI					Area Type All other areas						
Date Performed	08/28/12					Jurisdiction OCEANSIDE						
Time Period	AM PEAK					Analysis Year EXISTING 2011/WITH PROJECT						
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	0	1	0	0	0	0	4	0	0	5	0
Lane group	L		R					T			T	
Volume (vph)	506		262					1080			1832	
% Heavy veh	2		2					2			2	
PHF	0.95		0.95					0.95			0.95	
Actuated (P/A)	A		A					A			A	
Startup lost time	2.0		2.0					2.0			2.0	
Ext. eff. green	2.0		2.0					2.0			2.0	
Arrival type	4		4					5			5	
Unit Extension	3.0		3.0					3.0			3.0	
Ped/Bike/RTOR Volume	5		0	5								
Lane Width	12.0		12.0					12.0			12.0	
Parking/Grade/Parking	N	0	N	N		N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0		0					0			0	
Unit Extension	3.0		3.0					3.0			3.0	
Phasing	EB Only	02	03	04	Thru Only	06	07	08				
Timing	G = 26.0	G =	G =	G =	G = 64.0	G =	G =	G =				
	Y = 5	Y =	Y =	Y =	Y = 5	Y =	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 100.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	533		276					1137			1928	
Lane group cap.	894		412					4330			5412	
v/c ratio	0.60		0.67					0.26			0.36	
Green ratio	0.26		0.26					0.64			0.64	
Unif. delay d1	32.4		33.2					7.8			8.4	
Delay factor k	0.19		0.24					0.11			0.11	
Increm. delay d2	1.1		4.2					0.0			0.0	
PF factor	1.000		1.000					0.139			0.139	
Control delay	33.5		37.3					1.1			1.2	
Lane group LOS	C		D					A			A	
Apprch. delay	34.8						1.1			1.2		
Approach LOS	C						A			A		
Intersec. delay	8.2			Intersection LOS						A		

SHORT REPORT												
General Information						Site Information						
Analyst	USAI					COLLEGE BLVD.@ SR-78EB OFF-RAM						
Agency or Co.	USAI					Area Type All other areas						
Date Performed	08/28/12					Jurisdiction OCEANSIDE						
Time Period	PM PEAK					Analysis Year EXISTING 2011/WITH PROJECT						
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	0	1	0	0	0	0	4	0	0	5	0
Lane group	L		R					T			T	
Volume (vph)	467		518					1717			1755	
% Heavy veh	2		2					2			2	
PHF	0.95		0.95					0.95			0.95	
Actuated (P/A)	A		A					A			A	
Startup lost time	2.0		2.0					2.0			2.0	
Ext. eff. green	2.0		2.0					2.0			2.0	
Arrival type	4		4					5			5	
Unit Extension	3.0		3.0					3.0			3.0	
Ped/Bike/RTOR Volume	5		0	5								
Lane Width	12.0		12.0					12.0			12.0	
Parking/Grade/Parking	N	0	N	N		N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0		0					0			0	
Unit Extension	3.0		3.0					3.0			3.0	
Phasing	EB Only	02	03	04	Thru Only	06	07	08				
Timing	G = 36.0	G =	G =	G =	G = 54.0	G =	G =	G =				
	Y = 5	Y =	Y =	Y =	Y = 5	Y =	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 100.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	492		545				1807			1847		
Lane group cap.	1237		570				3653			4567		
v/c ratio	0.40		0.96				0.49			0.40		
Green ratio	0.36		0.36				0.54			0.54		
Unif. delay d1	23.9		31.2				14.4			13.5		
Delay factor k	0.11		0.47				0.11			0.11		
Increm. delay d2	0.2		27.1				0.1			0.1		
PF factor	0.934		0.934				0.217			0.217		
Control delay	22.5		56.2				3.2			3.0		
Lane group LOS	C		E				A			A		
Approch. delay	40.2						3.2			3.0		
Approach LOS	D						A			A		
Intersec. delay	11.3			Intersection LOS						B		

SHORT REPORT												
General Information							Site Information					
Analyst	USAI						COLLEGE BLVD.@ PLAZA					
Agency or Co.	USAI						DR.					
Date Performed	08/28/12						Area Type					
Time Period	AM PEAK						All other areas					
							Jurisdiction					
							OCEANSIDE					
							Analysis Year					
							EXISTING 2011/WITH PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	1	0	1	1	1	1	3	0	2	3	0
Lane group	L	TR		L	T	R	L	TR		L	TR	
Volume (vph)	82	43	58	104	17	219	45	785	259	750	1273	71
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Ext. eff. green	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Arrival type	4	4		4	4	4	5	5		5	5	
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5	10	0
Lane Width	12.0	12.0		12.0	12.0	12.0	12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0	0	0	0		0	0	
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Phasing	EB Only	WB Only	03	04	Excl. Left	SB Only	Thru & RT	08				
Timing	G = 12.0	G = 8.0	G =	G =	G = 10.0	G = 19.0	G = 31.0	G =				
	Y = 4	Y = 4	Y =	Y =	Y = 4	Y = 4	Y = 4	Y =				
Duration of Analysis (hrs) = 0.25							Cycle Length C = 100.0					
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	86	106		109	18	231	47	1099		789	1415	
Lane group cap.	192	182		122	130	672	159	1457		1100	2663	
v/c ratio	0.45	0.58		0.89	0.14	0.34	0.30	0.75		0.72	0.53	
Green ratio	0.11	0.11		0.07	0.07	0.44	0.09	0.30		0.32	0.53	
Unif. delay d1	41.7	42.3		46.1	43.7	18.5	42.5	31.7		30.0	15.4	
Delay factor k	0.11	0.17		0.42	0.11	0.11	0.11	0.31		0.28	0.13	
Increm. delay d2	1.7	4.7		50.3	0.5	0.3	1.0	2.3		2.3	0.2	
PF factor	1.000	1.000		1.000	1.000	0.849	0.934	0.714		0.686	0.248	
Control delay	43.3	47.0		96.5	44.2	16.0	40.8	24.9		22.9	4.0	
Lane group LOS	D	D		F	D	B	D	C		C	A	
Approch. delay	45.4			41.9			25.6			10.8		
Approach LOS	D			D			C			B		
Intersec. delay	19.7			Intersection LOS						B		

SHORT REPORT												
General Information						Site Information						
Analyst	USAI					COLLEGE BLVD.@ PLAZA DR.						
Agency or Co.	USAI					Area Type						
Date Performed	08/28/12					All other areas						
Time Period	PM PEAK					Jurisdiction						
						OCEANSIDE						
						EXISTING 2011/WITH PROJECT						
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	1	0	1	1	1	1	3	0	2	3	0
Lane group	L	TR		L	T	R	L	TR		L	TR	
Volume (vph)	78	44	45	164	33	446	72	1193	120	725	1408	140
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Ext. eff. green	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Arrival type	4	4		4	4	4	5	5		5	5	
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	5	10	0	22	10	0	9	10	0	5	10	0
Lane Width	12.0	12.0		12.0	12.0	12.0	12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0	0	0	0		0	0	
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Phasing	EB Only	WB Only	03	04	Excl. Left	SB Only	Thru & RT	08				
Timing	G = 10.0	G = 13.0	G =	G =	G = 7.0	G = 13.0	G = 42.2	G =				
	Y = 4.2	Y = 5.6	Y =	Y =	Y = 4.2	Y = 5.2	Y = 5.6	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 110.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	82	93		173	35	469	76	1382		763	1629	
Lane group cap.	135	137		191	203	558	97	1870		725	2695	
v/c ratio	0.61	0.68		0.91	0.17	0.84	0.78	0.74		1.05	0.60	
Green ratio	0.08	0.08		0.11	0.11	0.38	0.05	0.37		0.21	0.54	
Unif. delay d1	48.8	49.1		48.4	44.5	31.1	51.4	29.8		43.4	17.3	
Delay factor k	0.19	0.25		0.43	0.11	0.38	0.33	0.30		0.50	0.19	
Increm. delay d2	7.7	12.7		39.8	0.4	11.1	33.2	1.6		48.1	0.4	
PF factor	1.000	1.000		1.000	1.000	0.915	0.962	0.601		0.822	0.217	
Control delay	56.5	61.8		88.3	44.9	39.5	82.6	19.5		83.7	4.1	
Lane group LOS	E	E		F	D	D	F	B		F	A	
Approch. delay	59.3			52.2			22.8			29.5		
Approach LOS	E			D			C			C		
Intersec. delay	31.8			Intersection LOS						C		

SHORT REPORT												
General Information							Site Information					
Analyst	USAI						COLLEGE BLVD.@					
Agency or Co.	USAI						MARRON RD.					
Date Performed	08/28/12						All other areas					
Time Period	AM PEAK						OCEANSIDE					
							EXISTING 2011/WITH PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	1	1	1	1	1	2	2	1	2	2	0
Lane group	L	T	R	L	T	R	L	T	R	L	T	
Volume (vph)	231	43	146	403	90	262	144	616	233	203	927	
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Arrival type	4	4	4	4	4	4	5	5	5	5	5	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	5		0	5	10	0	5	10	0	5		
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0	0	0	0	0	0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Phasing	Excl. Left	WB Only	Thru & RT	04			Excl. Left	SB Only	Thru & RT	08		
Timing	G = 10.0	G = 15.0	G = 10.0	G =			G = 5.0	G = 6.0	G = 30.0	G =		
	Y = 4	Y = 4	Y = 4	Y =			Y = 4	Y = 4	Y = 4	Y =		
Duration of Analysis (hrs) = 0.25							Cycle Length C = 100.0					
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	251	47	159	438	98	285	157	670	253	221	1008	
Lane group cap.	344	186	301	513	540	585	172	1064	464	516	1419	
v/c ratio	0.73	0.25	0.53	0.85	0.18	0.49	0.91	0.63	0.55	0.43	0.71	
Green ratio	0.10	0.10	0.19	0.29	0.29	0.38	0.05	0.30	0.30	0.15	0.40	
Unif. delay d1	43.7	41.5	36.5	33.5	26.6	23.6	47.3	30.2	29.3	38.6	25.1	
Delay factor k	0.29	0.11	0.13	0.39	0.11	0.11	0.43	0.21	0.15	0.11	0.27	
Increm. delay d2	7.7	0.7	1.8	13.2	0.2	0.6	44.4	1.2	1.3	0.6	1.7	
PF factor	1.000	1.000	1.000	0.993	0.993	0.915	0.965	0.714	0.714	0.882	0.556	
Control delay	51.4	42.3	38.2	46.5	26.6	22.2	90.0	22.8	22.3	34.6	15.7	
Lane group LOS	D	D	D	D	C	C	F	C	C	C	B	
Apprch. delay	45.9			35.7			32.4			19.1		
Approach LOS	D			D			C			B		
Intersec. delay	30.3			Intersection LOS						C		

SHORT REPORT												
General Information							Site Information					
Analyst	USAI						COLLEGE BLVD.@					
Agency or Co.	USAI						MARRON RD.					
Date Performed	08/28/12						All other areas					
Time Period	PM PEAK						OCEANSIDE					
							EXISTING 2011/WITH PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	1	1	1	1	1	2	2	1	2	2	0
Lane group	L	T	R	L	T	R	L	T	R	L	T	
Volume (vph)	532	234	236	176	155	173	256	843	424	324	589	
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Arrival type	4	4	4	4	4	4	5	5	5	5	5	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5		
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0	0	0	0	0	0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Phasing	Excl. Left	Thru & RT	03		04		Excl. Left	Thru & RT	07		08	
Timing	G = 19.0	G = 16.0	G =		G =		G = 12.2	G = 31.9	G =		G =	
	Y = 4.6	Y = 5.3	Y =		Y =		Y = 5.3	Y = 5.7	Y =		Y =	
Duration of Analysis (hrs) = 0.25							Cycle Length C = 100.0					
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	560	246	248	185	163	182	269	887	446	341	620	
Lane group cap.	653	298	516	336	298	516	419	1131	878	419	1131	
v/c ratio	0.86	0.83	0.48	0.55	0.55	0.35	0.64	0.78	0.51	0.81	0.55	
Green ratio	0.19	0.16	0.34	0.19	0.16	0.34	0.12	0.32	0.57	0.12	0.32	
Unif. delay d1	39.2	40.6	26.4	36.6	38.7	25.1	41.8	30.9	13.2	42.8	28.1	
Delay factor k	0.39	0.36	0.11	0.15	0.15	0.11	0.22	0.33	0.12	0.35	0.15	
Increm. delay d2	11.0	17.1	0.7	1.9	2.1	0.4	3.3	3.7	0.5	11.7	0.6	
PF factor	1.000	1.000	0.957	1.000	1.000	0.957	0.907	0.688	0.131	0.907	0.688	
Control delay	50.2	57.7	25.9	38.6	40.8	24.4	41.3	25.0	2.2	50.5	19.9	
Lane group LOS	D	E	C	D	D	C	D	C	A	D	B	
Apprch. delay	46.3			34.4			21.4			30.8		
Approach LOS	D			C			C			C		
Intersec. delay	31.5			Intersection LOS						C		

College Boulevard at Carlsbad Village Drive/Peninsula Drive

Lane Configuration for Intersection Capacity Utilization

Page 2 of 3

15-A
Ex-14

Pk. Hr. Time Period :		South Appr (NB)			North Appr (SB)			West Appr (EB)			East Appr (WB)		
7:15 AM to 8:15 AM		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Configurations	Inside (left)	1	1		1			1			1		
		2		1		1		1	1			1	1
		3		1		1	1			1			
		4											
		5											
		6											
	Outside Free-flow	7											
Lane Settings		1	2	0	1	2	0	2	0	1	1	1	0
Capacity		1800	4000	0	1800	4000	0	3800	0	1800	1800	2000	0
Are the North/South phases split (Y/N)?					N								
Are the East/West phases split (Y/N)?					Y								
Efficiency Lost Factor		0.10	(+12)			(+44)	(+25)		(+9)				
Hourly Volume		55	386	1	4	1502	363	317	3	69	1	9	11
Adjusted Hourly Volume		55	387	0	4	1865	0	320	0	69	1	20	0
Utilization Factor		0.03	0.10	0.00	0.00	0.47	0.00	0.08	0.00	0.04	0.00	0.01	0.00
Critical Factors		0.03				0.47		0.08				0.01	

ICU Ratio = 0.69

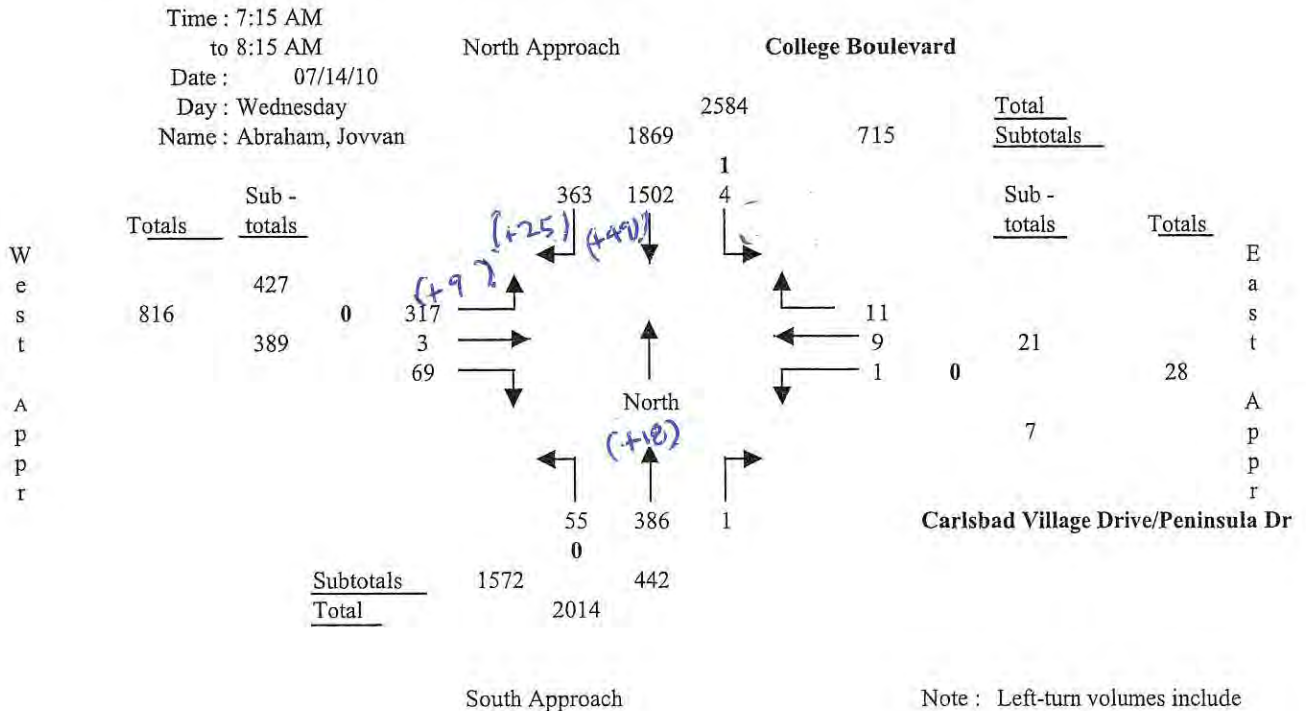
(0.71)

LOS = B

(LOS = C)

Turning Movements at Intersection of :

College Boulevard and Carlsbad Village Drive/Peninsula Drive



15-8
e EX+P4

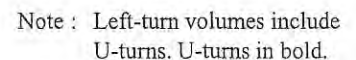
Page 3 of 3

ICU Ratio = 0.48
(0.51)

LOS = A
(A)

College Boulevard and Carlsbad Village Drive/Peninsula Drive

College Boulevard



SHORT REPORT														
General Information						Site Information								
Analyst	USAI					Intersection VISTA WAY@SR78WB OFF-ON RAMP								
Agency or Co.	USAI					Area Type All other areas								
Date Performed	08/28/12					Jurisdiction OCEANSIDE								
Time Period	AM PEAK					Analysis Year EXISTING 2011/WITH PROJECT								
Volume and Timing Input														
	EB			WB			NB			SB				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
Num. of Lanes	1	2	1	2	2	0	1	1	1	0	2	0		
Lane group	L	T	R	L	TR		L	LT	R		LTR			
Volume (vph)	85	529	240	207	222	37	645	61	176	43	68	37		
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2		
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95		
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A		
Startup lost time	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0			
Ext. eff. green	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0		2.0			
Arrival type	5	5	5	5	5		3	3	3		3			
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0			
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5	10	0		
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0		12.0			
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N		
Parking/hr														
Bus stops/hr	0	0	0	0	0		0	0	0		0			
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0			
Phasing	Excl. Left	Thru & RT	03		04		SB Only		NB Only		07		08	
Timing	G = 11.0	G = 27.0	G =		G =		G = 9.0		G = 37.0		G =		G =	
	Y = 4	Y = 4	Y =		Y =		Y = 4		Y = 4		Y =		Y =	
Duration of Analysis (hrs) = 0.25						Cycle Length C = 100.0								
Lane Group Capacity, Control Delay, and LOS Determination														
	EB			WB			NB			SB				
Adj. flow rate	89	557	253	218	273		373	370	185		156			
Lane group cap.	177	922	401	344	897		634	641	557		265			
v/c ratio	0.50	0.60	0.63	0.63	0.30		0.59	0.58	0.33		0.59			
Green ratio	0.10	0.26	0.26	0.10	0.26		0.36	0.36	0.36		0.08			
Unif. delay d1	42.6	32.5	32.8	43.2	29.7		26.0	25.9	23.3		44.4			
Delay factor k	0.11	0.19	0.21	0.21	0.11		0.18	0.17	0.11		0.18			
Increm. delay d2	2.3	1.1	3.2	3.8	0.2		1.4	1.3	0.4		3.4			
PF factor	0.926	0.766	0.766	0.926	0.766		1.000	1.000	1.000		1.000			
Control delay	41.8	26.0	28.3	43.8	23.0		27.4	27.1	23.6		47.8			
Lane group LOS	D	C	C	D	C		C	C	C		D			
Approch. delay	28.2			32.2			26.6			47.8				
Approach LOS	C			C			C			D				
Intersec. delay	29.6			Intersection LOS						C				

SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection VISTA WAY@SR78WB OFF-ON RAMP						
Agency or Co.	USAI					Area Type All other areas						
Date Performed	08/28/12					Jurisdiction OCEANSIDE						
Time Period	PM PEAK					Analysis Year EXISTING 2011/WITH PROJECT						
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	2	1	2	2	0	1	1	1	0	2	0
Lane group	L	T	R	L	TR		L	LT	R		LTR	
Volume (vph)	90	482	340	293	421	33	779	62	115	65	83	63
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0	
Ext. eff. green	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0		2.0	
Arrival type	5	5	5	5	5		3	3	3		3	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0	
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5	10	0
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0		12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0		0	0	0		0	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0	
Phasing	Excl. Left	WB Only	Thru & RT	04			SB Only	NB Only	07			08
Timing	G = 10.0	G = 9.0	G = 22.0	G =			G = 9.0	G = 40.0	G =			G =
	Y = 4	Y = 4	Y = 4	Y =			Y = 4	Y = 4	Y =			Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 110.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	95	507	358	308	478		451	434	121		221	
Lane group cap.	145	677	843	687	1081		628	634	549		238	
v/c ratio	0.66	0.75	0.42	0.45	0.44		0.72	0.68	0.22		0.93	
Green ratio	0.08	0.19	0.55	0.20	0.31		0.35	0.35	0.35		0.07	
Unif. delay d1	49.0	42.0	14.8	38.7	30.4		30.7	30.3	24.9		50.7	
Delay factor k	0.23	0.30	0.11	0.11	0.11		0.28	0.25	0.11		0.44	
Increment. delay d2	10.2	4.6	0.3	0.5	0.3		4.0	3.1	0.2		39.3	
PF factor	0.941	0.843	0.200	0.833	0.702		1.000	1.000	1.000		1.000	
Control delay	56.3	40.0	3.3	32.7	21.6		34.7	33.3	25.1		90.0	
Lane group LOS	E	D	A	C	C		C	C	C		F	
Approch. delay	27.9			26.0			32.9			90.0		
Approach LOS	C			C			C			F		
Intersec. delay	33.7			Intersection LOS						C		

SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection PLAZA BLVD.@SR-78EB						
Agency or Co.	USAI					OFF-ON RAM						
Date Performed	08/24/12					Area Type All other areas						
Time Period	AM PEAK					Jurisdiction OCEANSIDE						
						Analysis Year EXISTING 2011/WITH PROJECT						
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	2	0	1	2	0	1	1	1	1	1	0
Lane group	L	TR		L	TR		L	LT	R	L	TR	
Volume (vph)	800	213	33	24	251	36	34	3	7	65	11	30
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Arrival type	5	5		5	5		3	3	3	3	3	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5	10	0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0	0	0	0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Phasing	Excl. Left	EB Only	Thru & RT	04			SB Only	NB Only	07		08	
Timing	G = 5.0	G = 43.0	G = 19.0	G =			G = 9.0	G = 4.0	G =		G =	
	Y = 4	Y = 4	Y = 4	Y =			Y = 4	Y = 4	Y =		Y =	
Duration of Analysis (hrs) = 0.25						Cycle Length C = 100.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	842	259		25	302		20	19	7	68	44	
Lane group cap.	1753	2250		71	624		50	51	42	139	127	
v/c ratio	0.48	0.12		0.35	0.48		0.40	0.37	0.17	0.49	0.35	
Green ratio	0.51	0.65		0.04	0.18		0.03	0.03	0.03	0.08	0.08	
Unif. delay d1	15.9	6.6		46.7	36.8		47.6	47.6	47.3	44.0	43.5	
Delay factor k	0.11	0.11		0.11	0.11		0.11	0.11	0.11	0.11	0.11	
Incram. delay d2	0.2	0.0		3.0	0.6		5.2	4.5	1.9	2.7	1.6	
PF factor	0.306	0.143		0.972	0.854		1.000	1.000	1.000	1.000	1.000	
Control delay	5.1	1.0		48.4	32.0		52.8	52.1	49.2	46.7	45.2	
Lane group LOS	A	A		D	C		D	D	D	D	D	
Apprch. delay	4.1			33.3			52.0			46.1		
Approach LOS	A			C			D			D		
Intersec. delay	14.5			Intersection LOS						B		

SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	PLAZA BLVD.@SR-78EB					
Agency or Co.	USAI					Area Type	OFF-ON RAM					
Date Performed	08/28/12					Jurisdiction	All other areas					
Time Period	PM PEAK					Analysis Year	OCEANSIDE					
						EXISTING 2011/WITH PROJECT						
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	2	0	1	2	0	1	1	1	1	1	0
Lane group	L	TR		L	TR		L	LT	R	L	TR	
Volume (vph)	817	324	60	96	363	59	156	44	54	123	38	39
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Arrival type	5	5		5	5		3	3	3	3	3	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	15	10	0	5	10	0	17	10	0	15	10	0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0	0	0	0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Phasing	Excl. Left	EB Only	Thru & RT	04	SB Only	NB Only	07	08				
Timing	G = 14.0	G = 26.0	G = 23.0	G =	G = 15.0	G = 12.0	G =	G =				
	Y = 4	Y = 4	Y = 4	Y =	Y = 4	Y = 4	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 110.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	860	404		101	444		90	120	57	129	81	
Lane group cap.	1344	1627		209	692		166	174	146	218	212	
v/c ratio	0.64	0.25		0.48	0.64		0.54	0.69	0.39	0.59	0.38	
Green ratio	0.39	0.47		0.12	0.20		0.10	0.10	0.10	0.13	0.13	
Unif. delay d1	27.2	17.3		45.4	40.4		47.1	47.8	46.4	45.3	44.0	
Delay factor k	0.22	0.11		0.11	0.22		0.14	0.26	0.11	0.18	0.11	
Increment. delay d2	1.0	0.1		1.8	2.0		3.6	11.0	1.7	4.2	1.2	
PF factor	0.572	0.402		0.911	0.833		1.000	1.000	1.000	1.000	1.000	
Control delay	16.6	7.1		43.1	35.7		50.7	58.8	48.1	49.6	45.2	
Lane group LOS	B	A		D	D		D	E	D	D	D	
Approch. delay	13.6			37.0			53.8			47.9		
Approach LOS	B			D			D			D		
Intersec. delay	27.0			Intersection LOS						C		

19 A
EXP**SHORT REPORT**

General Information				Site Information			
Analyst	USAI			Intersection	LAKE BLVD.@THUNDER DR.		
Agency or Co.	USAI			Area Type	All other areas		
Date Performed	08/28/12			Jurisdiction	OCEANSIDE-INT.#19		
Time Period	AM PEAK			Analysis Year	EXISTING PLUS PROJECT		

Volume and Timing Input														
			EB			WB			NB			SB		
			LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes			1	2	0	1	2	0	1	1	0	1	1	0
Lane group			L	TR		L	TR		L	TR		L	TR	
Volume (vph)			141	262	2	2	510	84	1	2	2	53	2	192
% Heavy veh			2	2	2	2	2	2	2	2	2	2	2	2
PHF			0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Actuated (P/A)			A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time			3.0	3.0		3.0	3.0		2.0	3.0		3.0	3.0	
Ext. eff. green			2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Arrival type			3	3		3	3		3	3		3	3	
Unit Extension			3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume			5	10	0	5	10	0	5		0	5		0
Lane Width			12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
Parking/Grade/Parking			N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr														
Bus stops/hr			0	0		0	0		0	0		0	0	
Unit Extension			3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Phasing	Excl. Left	Thru & RT	03			04		Excl. Left	Thru & RT	07			08	
Timing	G = 13.0	G = 42.0	G =			G =		G = 8.0	G = 19.1	G =			G =	
	Y = 4.2	Y = 5.3	Y =			Y =		Y = 4.2	Y = 4.2	Y =			Y =	
Duration of Analysis (hrs) = 0.25									Cycle Length C = 100.0					

Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	153	287		2	645		1	4		58	211	
Lane group cap.	212	1452		212	1417		142	312		124	287	
v/c ratio	0.72	0.20		0.01	0.46		0.01	0.01		0.47	0.74	
Green ratio	0.12	0.41		0.12	0.41		0.08	0.18		0.07	0.18	
Unif. delay d1	42.4	18.9		38.8	21.4		42.3	33.6		44.7	38.7	
Delay factor k	0.28	0.11		0.11	0.11		0.11	0.11		0.11	0.29	
Increm. delay d2	11.4	0.1		0.0	0.2		0.0	0.0		2.8	9.5	
PF factor	1.000	1.000		1.000	1.000		1.000	1.000		1.000	1.000	
Control delay	53.8	19.0		38.8	21.6		42.4	33.6		47.5	48.2	
Lane group LOS	D	B		D	C		D	C		D	D	
Apprch. delay	31.1			21.7			35.4			48.0		
Approach LOS	C			C			D			D		
Intersec. delay	30.0			Intersection LOS						C		

19-P
EXP

SHORT REPORT													
General Information						Site Information							
Analyst	USAI					Intersection	LAKE BLVD.@THUNDER DR.						
Agency or Co.	USAI					Area Type	All other areas						
Date Performed	08/29/12					Jurisdiction	OCEANSIDE-INT.#19						
Time Period	PM PEAK					Analysis Year	EXISTING PLUS PROJECT						
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	1	2	0	1	2	0	1	1	0	1	1	0	
Lane group	L	TR		L	TR		L	TR		L	TR		
Volume (vph)	254	543	5	5	303	99	1	2	6	124	3	137	
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2	
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0		
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0		
Arrival type	3	3		3	3		3	3		3	3		
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0		
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5		0	5		0	
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0		0	0		0	0		0	0		
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0		
Phasing	Excl. Left	EW Perm	Thru & RT	04			Excl. Left	Thru & RT	07			08	
Timing	G = 4.0	G = 15.0	G = 40.0	G =			G = 13.0	G = 14.8	G =			G =	
	Y = 4.2	Y = 5.3	Y = 5.3	Y =			Y = 4.2	Y = 4.2	Y =			Y =	
Duration of Analysis (hrs) = 0.25									Cycle Length C = 110.0				
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	276	595		5	437		1	9		135	152		
Lane group cap.	357	1909		115	1200		193	206		193	199		
v/c ratio	0.77	0.31		0.04	0.36		0.01	0.04		0.70	0.76		
Green ratio	0.20	0.54		0.20	0.35		0.11	0.13		0.11	0.13		
Unif. delay d1	41.5	14.0		35.7	26.3		43.7	42.3		47.3	46.5		
Delay factor k	0.32	0.11		0.11	0.11		0.11	0.11		0.27	0.32		
Increm. delay d2	10.1	0.1		0.2	0.2		0.0	0.1		10.7	16.1		
PF factor	1.000	1.000		1.000	1.000		1.000	1.000		1.000	1.000		
Control delay	51.6	14.1		35.8	26.5		43.7	42.4		57.9	62.6		
Lane group LOS	D	B		D	C		D	D		E	E		
Apprch. delay	26.0			26.6			42.5			60.4			
Approach LOS	C			C			D			E			
Intersec. delay	32.4			Intersection LOS						C			

SHORT REPORT												
General Information							Site Information					
Analyst	USAI						COLLEGE BLVD.@					
Agency or Co.	USAI						WARING RD.					
Date Performed	08/28/12						All other areas					
Time Period	AM PEAK						OCEANSIDE-INT#20					
							Analysis Year					
							EXISTING/WITH PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	1	1	1	1	0	2	2	1	1	2	1
Lane group		LT	R	L	TR		L	T	R	L	T	R
Volume (vph)	25	32	182	107	47	43	446	698	195	71	1234	138
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time		2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Ext. eff. green		2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Arrival type		4	4	4	4		5	5	5	5	5	5
Unit Extension		3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Ped/Bike/RTOR Volume	5	5	0	5	5	0	5	5	0	5	5	0
Lane Width		12.0	12.0	12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr		0	0	0	0		0	0	0	0	0	0
Unit Extension		3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Phasing	EB Only	WB Only	03		04		Excl. Left	Thru & RT		07		08
Timing	G = 14.0	G = 7.0	G =		G =		G = 15.1	G = 44.0		G =		G =
	Y = 4.6	Y = 4	Y =		Y =		Y = 4.6	Y = 6.7		Y =		Y =
Duration of Analysis (hrs) = 0.25								Cycle Length C = 100.0				
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate		62	198	116	98		485	759	212	77	1341	150
Lane group cap.		254	449	121	118		519	1561	676	267	1561	684
v/c ratio		0.24	0.44	0.96	0.83		0.93	0.49	0.31	0.29	0.86	0.22
Green ratio		0.14	0.29	0.07	0.07		0.15	0.44	0.44	0.15	0.44	0.44
Unif. delay d1		38.3	28.8	46.4	45.9		42.0	19.9	18.2	37.7	25.2	17.4
Delay factor k		0.11	0.11	0.47	0.37		0.45	0.11	0.11	0.11	0.39	0.11
Increm. delay d2		0.5	0.7	68.7	37.0		24.3	0.2	0.3	0.6	5.1	0.2
PF factor		1.000	0.993	1.000	1.000		0.881	0.476	0.476	0.881	0.476	0.476
Control delay		38.8	29.3	115.1	82.9		61.3	9.7	8.9	33.8	17.1	8.4
Lane group LOS		D	C	F	F		E	A	A	C	B	A
Apprch. delay	31.6			100.4			26.8			17.1		
Approach LOS	C			F			C			B		
Intersec. delay	27.3			Intersection LOS						C		

SHORT REPORT												
General Information							Site Information					
Analyst	USAI						COLLEGE BLVD.@					
Agency or Co.	USAI						WARING RD.					
Date Performed	08/28/12						All other areas					
Time Period	PM PEAK						OCEANSIDE-INT#20PM					
							Analysis Year					
							EXISTING/WITH PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	1	1	1	1	0	2	2	1	1	2	1
Lane group		LT	R	L	TR		L	T	R	L	T	R
Volume (vph)	103	54	397	129	51	116	382	1286	164	68	907	78
% Heavy veh	1	1	1	1	1	1	1	2	1	1	2	1
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time		2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Ext. eff. green		2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Arrival type		4	4	4	4		5	5	5	5	5	5
Unit Extension		3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Ped/Bike/RTOR Volume	5	5	0	5	5	0	5	5	0	5	5	0
Lane Width		12.0	12.0	12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr		0	0	0	0		0	0	0	0	0	0
Unit Extension		3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Phasing	EB Only	WB Only	03		04		Excl. Left	NB Only	Thru & RT		08	
Timing	G = 12.0	G = 10.0	G =		G =		G = 10.0	G = 11.1	G = 42.0		G =	
	Y = 4.6	Y = 4	Y =		Y =		Y = 4.6	Y = 5	Y = 6.7		Y =	
Duration of Analysis (hrs) = 0.25							Cycle Length C = 110.0					
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate		171	432	140	181		415	1398	178	74	986	85
Lane group cap.		197	532	160	149		811	1873	821	162	1354	599
v/c ratio		0.87	0.81	0.88	1.21		0.51	0.75	0.22	0.46	0.73	0.14
Green ratio		0.11	0.34	0.09	0.09		0.23	0.53	0.53	0.09	0.38	0.38
Unif. delay d1		48.2	32.9	49.4	50.0		36.7	20.2	13.8	47.4	29.1	22.2
Delay factor k		0.40	0.35	0.40	0.50		0.12	0.30	0.11	0.11	0.29	0.11
Increm. delay d2		31.3	9.3	37.9	142.9		0.6	1.7	0.1	2.0	2.0	0.1
PF factor		1.000	0.950	1.000	1.000		0.797	0.254	0.254	0.933	0.588	0.588
Control delay		79.5	40.6	87.3	192.9		29.8	6.8	3.6	46.3	19.1	13.2
Lane group LOS		E	D	F	F		C	A	A	D	B	B
Apprch. delay	51.6			146.8			11.3			20.5		
Approach LOS	D			F			B			C		
Intersec. delay	30.6			Intersection LOS						C		

21AM
EXT

SHORT REPORT												
General Information						Site Information						
Analyst Agency or Co. Date Performed Time Period						Intersection Area Type Jurisdiction Analysis Year						
USA/ USA/ 06/03/12 AM PEAK						MARRON RD.@QUARRY CREEK CTR. All other areas OCEANSIDE EXISTING PLUS PROJECT						
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	2	0	2	2	1	0	1	1	1	1	1
Lane group	L	TR		L	T	R		LTR	R	L	LT	R
Volume (vph)	10	186	7	160	75	144	2	5	74	135	5	4
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0
Ext. eff. green	2.0	2.0		2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0
Arrival type	3	3		3	3	3		3	3	3	3	3
Unit Extension	3.0	3.0		3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5	10	0
Lane Width	12.0	12.0		12.0	12.0	12.0		12.0	12.0	12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0	0		0	0	0	0	0
Unit Extension	3.0	3.0		3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0
Phasing	Excl. Left	Thru & RT	03	04	NB Only	SB Only	07	08				
Timing	G = 10.0	G = 20.0	G =	G =	G = 10.0	G = 10.0	G =	G =				
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 5	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 70.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	11	210		174	82	157		7	80	118	34	4
Lane group cap.	491	1007		491	1013	663		262	212	248	251	218
v/c ratio	0.02	0.21		0.35	0.08	0.24		0.03	0.38	0.48	0.14	0.02
Green ratio	0.14	0.29		0.14	0.29	0.43		0.14	0.14	0.14	0.14	0.14
Unif. delay d1	25.8	19.0		27.1	18.3	12.7		25.8	27.2	27.6	26.2	25.8
Delay factor k	0.11	0.11		0.11	0.11	0.11		0.11	0.11	0.11	0.11	0.11
Increm. delay d2	0.0	0.1		0.4	0.0	0.2		0.0	1.1	1.4	0.2	0.0
PF factor	1.000	1.000		1.000	1.000	1.000		1.000	1.000	1.000	1.000	1.000
Control delay	25.8	19.1		27.5	18.3	12.9		25.9	28.3	29.0	26.5	25.8
Lane group LOS	C	B		C	B	B		C	C	C	C	C
Apprch. delay	19.4			20.1				28.1			28.4	
Approach LOS	B			C				C			C	
Intersec. delay	22.2			Intersection LOS						C		

21-PM
EXT

SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	MARRON RD.@QUARRY CREEK CTR.					
Agency or Co.	USAI					Area Type	All other areas					
Date Performed	06/03/12					Jurisdiction	OCEANSIDE					
Time Period	PM PEAK					Analysis Year	EXISTING PLUS PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	2	0	2	2	1	0	1	1	1	1	1
Lane group	L	TR		L	T	R		LTR	R	L	LT	R
Volume (vph)	6	146	4	338	221	306	8	5	275	491	5	11
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0
Ext. eff. green	2.0	2.0		2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0
Arrival type	3	3		3	3	3		3	3	3	3	3
Unit Extension	3.0	3.0		3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	25	5	10	0
Lane Width	12.0	12.0		12.0	12.0	12.0		12.0	12.0	12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0	0		0	0	0	0	0
Unit Extension	3.0	3.0		3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0
Phasing	Excl. Left	Thru & RT	03	04	NB Only	SB Only	07	08				
Timing	G = 15.0	G = 15.0	G =	G =	G = 18.0	G = 32.0	G =	G =				
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 5	Y =	Y =				
Duration of Analysis (hrs) = 0.25			Cycle Length C = 100.0									
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	7	163		367	240	333		147	139	320	219	12
Lane group cap.	516	530		516	532	725		275	270	563	565	495
v/c ratio	0.01	0.31		0.71	0.45	0.46		0.53	0.51	0.57	0.39	0.02
Green ratio	0.15	0.15		0.15	0.15	0.47		0.18	0.18	0.32	0.32	0.32
Unif. delay d1	36.2	37.9		40.4	38.7	17.9		37.2	37.1	28.3	26.4	23.3
Delay factor k	0.11	0.11		0.27	0.11	0.11		0.14	0.12	0.16	0.11	0.11
Increm. delay d2	0.0	0.3		4.6	0.6	0.5		2.0	1.7	1.4	0.4	0.0
PF factor	1.000	1.000		1.000	1.000	1.000		1.000	1.000	1.000	1.000	1.000
Control delay	36.2	38.2		45.0	39.4	18.4		39.2	38.8	29.6	26.8	23.3
Lane group LOS	D	D		D	D	B		D	D	C	C	C
Apprch. delay	38.1			34.1			39.0			28.4		
Approach LOS	D			C			D			C		
Intersec. delay	33.6			Intersection LOS						C		

22 AM
EX+P

ROUNDBABOUTS - UNSIGNALIZED INTERSECTIONS WORKSHEET					
General Information			Site Information		
Analyst USAI			Intersection MARRON RD./STREET B		
Agency/Co. USAI			Jurisdiction CARLSBAD		
Date Performed 6/7/2012			Analysis Year EXISTING PLUS PROJECT		
Time Period AM PEAK HOUR					
Project Description QC					
Volume Adjustments					
		EB	WB	NB	SB
LT Traffic	Volume, veh/h	30	0	0	149
	PHF	0.90	0.90	0.90	0.90
	Flow rate, veh/h	33	0	0	165
TH Traffic	Volume, veh/h	36	12	0	0
	PHF	0.90	0.90	0.90	0.90
	Flow rate, veh/h	40	13	0	0
RT Traffic	Volume, veh/h	0	52	0	10
	PHF	0.90	0.90	0.90	0.90
	Flow rate, veh/h	0	57	0	11
Approach Flow Computation					
Approach Flow (veh/h)			Va (veh/h)		
V _{ae}			73		
V _{aw}			70		
V _{an}			0		
V _{as}			176		
Circulating Flow Computation					
Approach Flow (veh/h)			Vc (veh/h)		
V _{ce}			165		
V _{cw}			33		
V _{cn}			238		
V _{cs}			13		
Capacity Computation					
		EB	WB	NB	SB
Capacity	Upper bound	1217	1349	1149	1370
	Lower bound	1008	1129	947	1148
v/c Ratio	Upper bound	0.06	0.05	0.00	0.13
	Lower bound	0.07 ✓	0.06 ✓	0.00 ✓	0.15 ✓

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Version 4.1f

ALL v/c @ Los A

'22' PM
EX+P

ROUNDBABOUTS - UNSIGNALIZED INTERSECTIONS WORKSHEET					
General Information			Site Information		
Analyst USAI			Intersection MARRON RD./STREET B		
Agency/Co. USAI			Jurisdiction CARLSBAD		
Date Performed 6/7/2012			Analysis Year EXISTING PLUS PROJECT		
Time Period PM PEAK HOUR					
Project Description QC					
Volume Adjustments					
		EB	WB	NB	SB
LT Traffic	Volume, veh/h	15	0	0	83
	PHF	0.90	0.90	0.90	0.90
	Flow rate, veh/h	16	0	0	92
TH Traffic	Volume, veh/h	18	42	0	0
	PHF	0.90	0.90	0.90	0.90
	Flow rate, veh/h	20	46	0	0
RT Traffic	Volume, veh/h	0	164	0	34
	PHF	0.90	0.90	0.90	0.90
	Flow rate, veh/h	0	182	0	37
Approach Flow Computation					
Approach Flow (veh/h)			Va (veh/h)		
V _{ae}			36		
V _{aw}			228		
V _{an}			0		
V _{as}			129		
Circulating Flow Computation					
Approach Flow (veh/h)			Vc (veh/h)		
V _{ce}			92		
V _{cw}			16		
V _{cn}			128		
V _{cs}			46		
Capacity Computation					
		EB	WB	NB	SB
Capacity	Upper bound	1288	1367	1252	1335
	Lower bound	1073	1145	1041	1116
v/c Ratio	Upper bound	0.03	0.17	0.00	0.10
	Lower bound	0.03 ✓	0.20 ✓	0.00 ✓	0.12 ✓

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ALL v/c @ LOS A

APPENDIX B

Near-Term Without Project

- **OTHER PROJECTS DESCRIPTIONS**
- **INTERSECTION LOS WORKSHEETS**

SOURCE OF
EL CORAZON
PHASE 1 & 2 PROJECT DATA

EL-COR
1/11

7.0 EXISTING + PROJECT (PHASE 1D & 1E ONLY) ANALYSES

7.1 Trip Generation

Land uses which are expected to be constructed by Year 2010, were considered for existing plus project (Phase 1D & 1E Only) analysis. Based on the land use phasing described in Section 2.3, the following land uses were considered for Existing + Project (Phase 1D & 1E Only) analysis:

Phase 1D: Commercial Development Asset Property – Hotel Site. According to the El Corazon Land Use Master Plan Project Report dated June 28th, 2005 the hotel is planned to be developed in an urban compact form due to its near location near the Village Commercial district. Therefore, a trip generation for Hotel (w/convention facilities/restaurants) was considered for this land use.

Phase 1E: Commercial Development Asset Property – Village Commercial. Based on the El Corazon Land Use Master Plan Project and Report dated June 28th, 2005, the Village Commercial will contain specialty retail that is complementary and compatible to adjacent park, community, and cultural and surrounding land uses. Based on this description, since high generation retail anchor is planned and based on the proposed nature of this commercial, a trip generation for Specialty Retail/Strip Commercial was utilized for this land use.

The trip generation for both the land uses was calculated based on the SANDAG publication "Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region", April 2002. *Table 7-1* summarizes the trip generation calculations for both the project sites.

Additionally, the Village commercial traffic generation was divided into primary trips and pass-by trips due to the percentage of pass-by trips attracted to this type of development. Pass-by trips are trips attracted from traffic already on the street system passing near the site while going from one location to another such as work to retail to home. This is as opposed to primary trips in which the trip returns to its place of origin such as home to grocery store to home. *Table 7-1* shows the breakdown of primary trips and pass-by trips for the existing + project (Phase 1D & 1E Only) project site.

Appendix B contains a detailed description of pass-by trips as contained in the Institute of Transportation Engineers (ITE) Trip Generation Manual. As seen on *Table 7-1*, the project (Phase 1) is calculated to generate a total of 7,960 primary daily trips, with 285 trips (171 inbound and 114 outbound trips) in the AM peak hour and 702 trips (363 inbound and 339 outbound trips) in the PM peak hour.

7.2 Trip Distribution/Assignment

The project-generated traffic was distributed to the street system based on a SANDAG Select Zone Assignment (SZA). The SZA uses the land-use assumptions in the Cities/County Transportation Forecast to distribute traffic volumes generated by the project site throughout the region. It is from this forecasted distribution (as well as existing traffic counts and the project's location in relation to the I-5, SR-76 and SR-78 freeways) that the general regional traffic distribution is deduced.

**TABLE 7-1
PHASE I—PROJECT TRIP GENERATION**

Land Use	Quantity	Daily Trip Ends (ADT)			AM Peak Hour				PM Peak Hour			
		Rate	Volume	% of ADT	In:Out Split	Volume			% of ADT	In:Out Split	Volume	
						In	Out	Total			In	Out
1D: Hotel Site A	5 Acres	300 /Acre ^a	1,500	6%	6:4	54	36	90	8%	6:4	72	48
1E: Village Commercial	19 Acres	400 /Acre ^b	7,600	3%	6:4	137	91	228	9%	5:5	342	342
Total Trip Generation:			9,100	—	—	191	127	318	—	—	414	390
Primary Trip Generation:			7,960	—	—	171	114	285	—	—	363	339
Pass-by Trip Generation For Village Commercial:			1,140	—	—	20	13	33	—	—	51	51
Total Trip Generation:												
Primary Trip Generation:												
Pass-by Trip Generation For Village Commercial:												

Footnotes:

- Generation rates obtained from the SANDAG Brief Guide (May 2002).
- Rate is a trip-end 1,000 square feet for retail.

General Notes:

- Trip-ends are one-way traffic movements, either entering or leaving.
- Numbers shown in parenthesis are negative values.

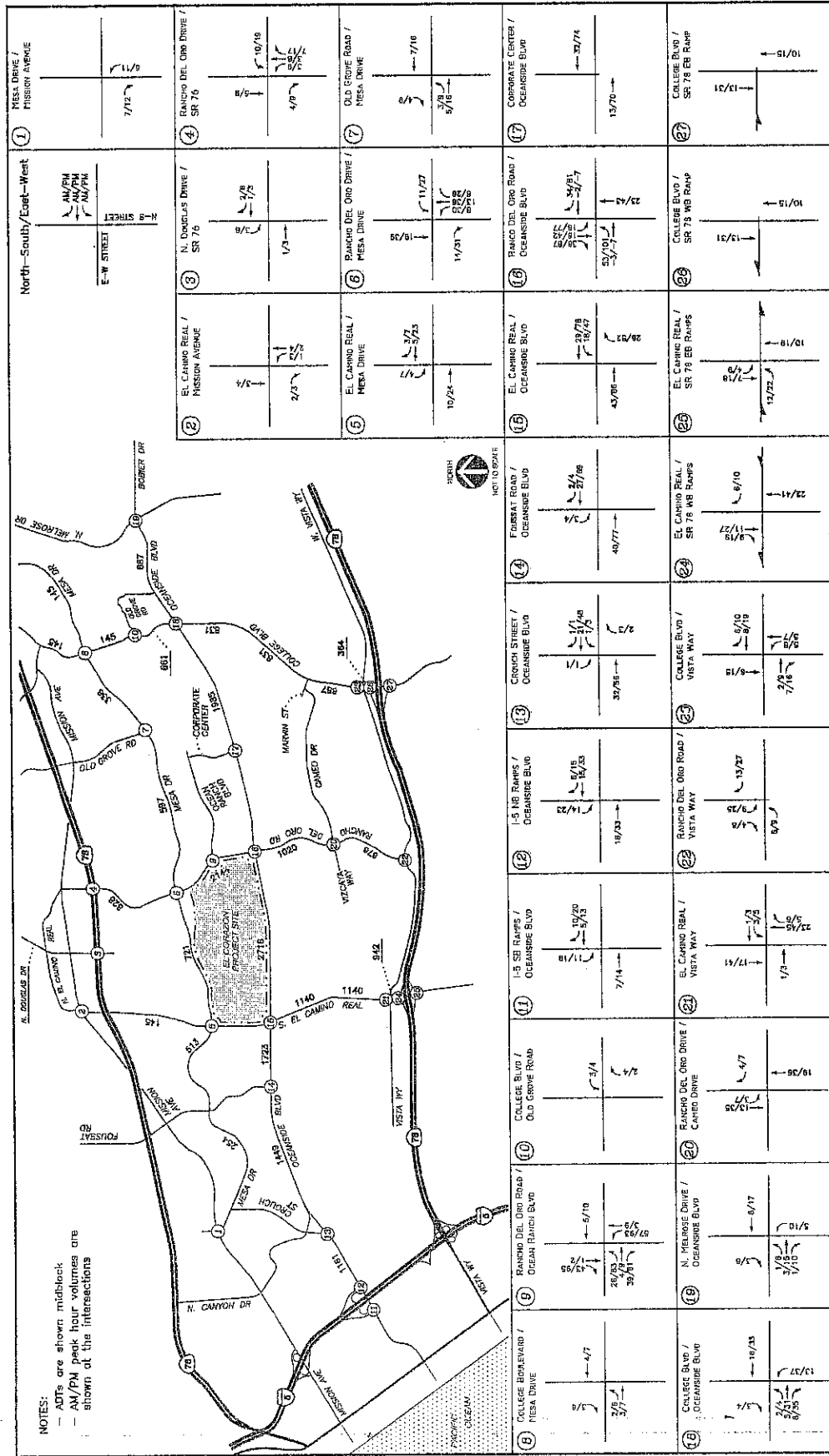


Figure 7-3b

Phase I (1A, 1D-1F) Project Traffic Volumes
 AM/PM Peak Hours & ADT

57

REV. 10/15/07
 LG1666 FIG7-3b



EL-Cor
 3/11

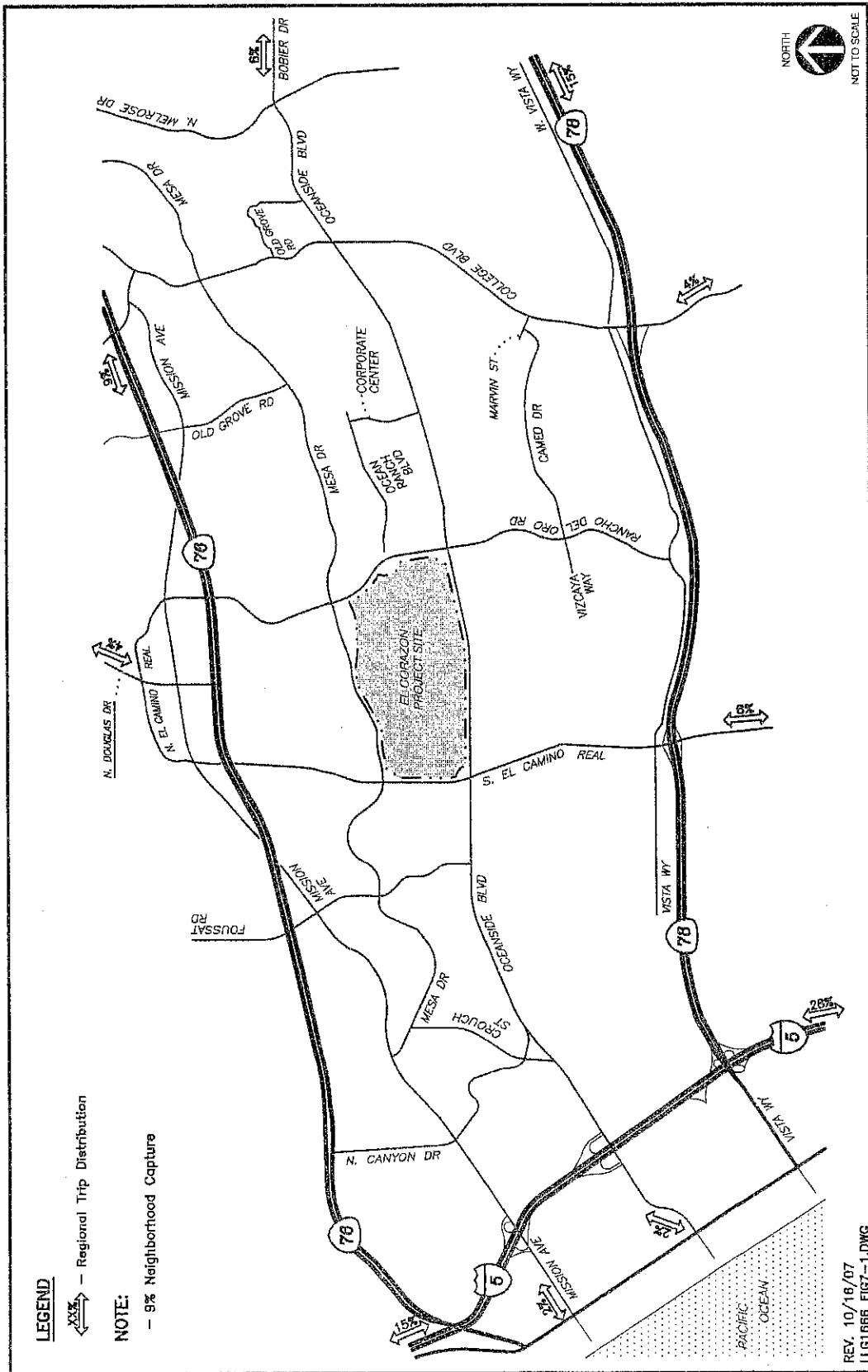


Figure 7-1

Hotel - Project Regional Traffic Distribution

EL - 002
EL CORAZON
(K/11)

LINSCOTT
LAW &
GREENSPAN
engineers

EL-COR
5/11

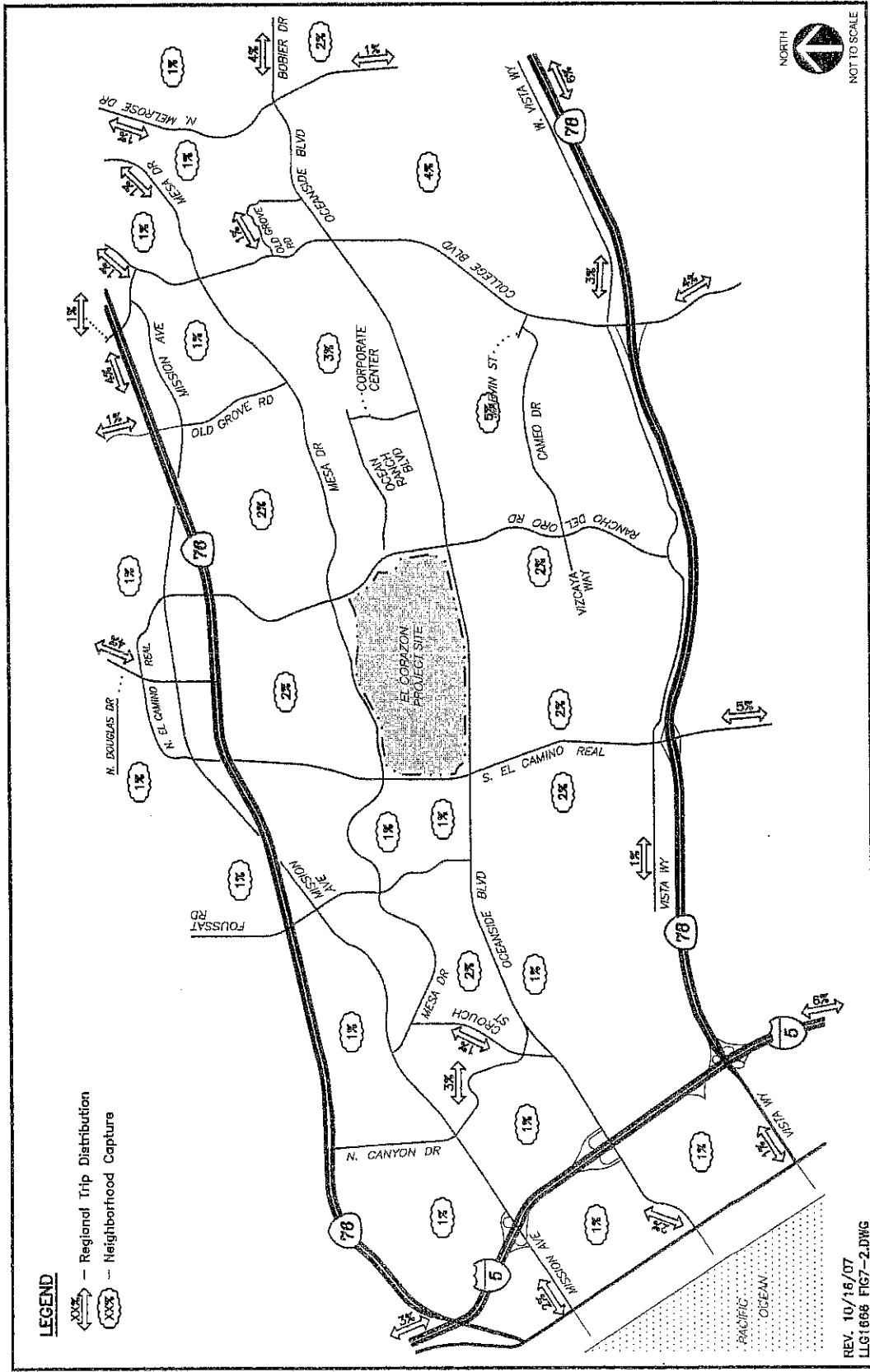


Figure 7-2
Commercial - Project Regional Traffic Distribution

EL CORAZON

**LINSCOTT
LAW &
GREENSPAN**
engineers

TABLE 8-2
TRIP GENERATION YEAR 2010 (PHASE II)

Land Use	Quantity	Daily Trip Ends (ADT)			AM Peak Hour				PM Peak Hour			
		Rate	Volume	% of ADT	In:Out Split	Volume			In:Out Split	Volume		
						In	Out	Total		In	Out	Total
Soccer Fields & Infrastructure	55.3 Acres	50 /Acre ¹	2,765	2%	5:5	28	28	56	5:5	180	180	360
Softball Complex & Infrastructure	12.5 Acres	50 /Acre ¹	625	2%	5:5	7	6	13	5:5	41	41	82
Baseball Complex & Infrastructure	15.7 Acres	50 /Acre ¹	785	2%	5:5	8	8	16	5:5	52	51	103
Total Trip Generation (Phase 2)			4,175			43	42	85		273	272	545
Trip Generation (Phase 1D & 1E) From Table 7-1			9,100			191	127	318		414	390	804
Net Short Term (Year 2010) Trip Generation			13,275			234	169	403		687	662	1,349
Net Short Term (Year 2010) Total Primary Trip Generation			12,135			214	156	370		636	611	1,247
Pass-by Trip Generation For Village Commercial (Phase 1E)			1,140			20	13	33		51	51	102

Footnotes:

¹ Generation rate for daily traffic obtained from the SANDAG Brief Guide (April 2002) for City park (Active Park), and the peak hour percentages and split is based on the additional survey conducted by LLG.

EL-COR
6/11

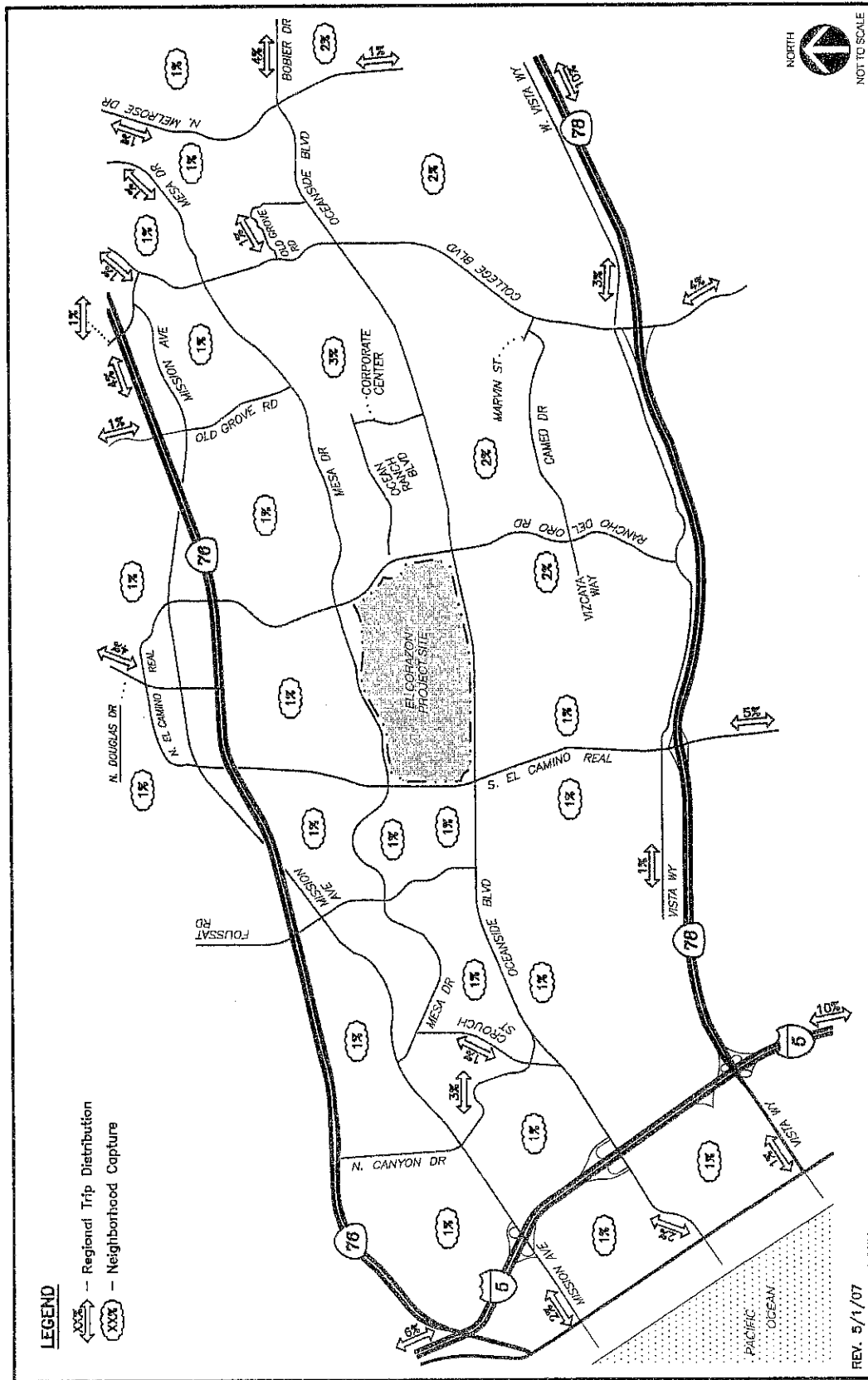


Figure 8-2

Park - Project Regional Traffic Distribution

EL-COR
EL CORAZON
7/11

LINSCOTT
LAW &
GREENSPAN
engineers

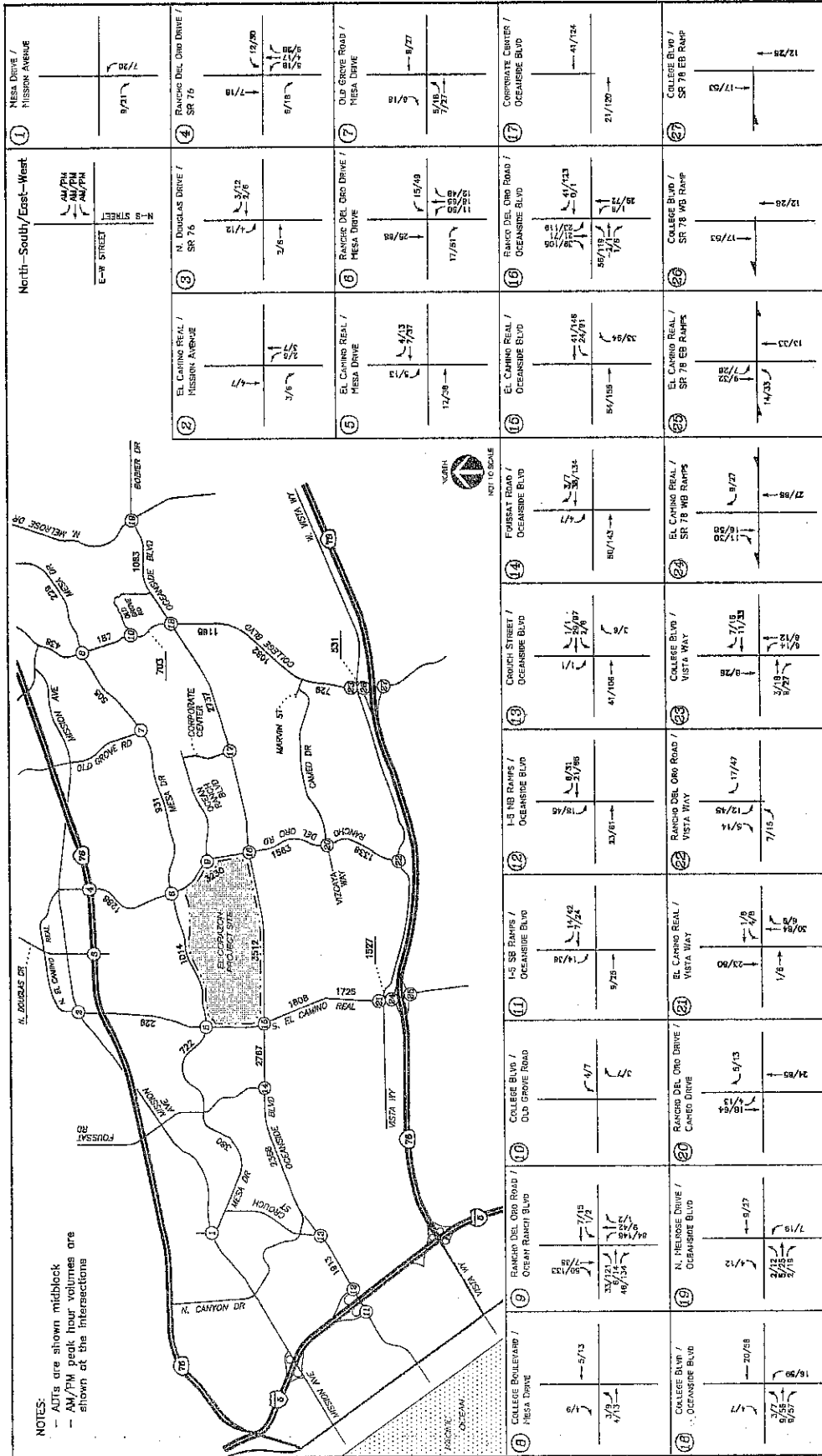
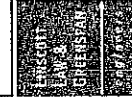


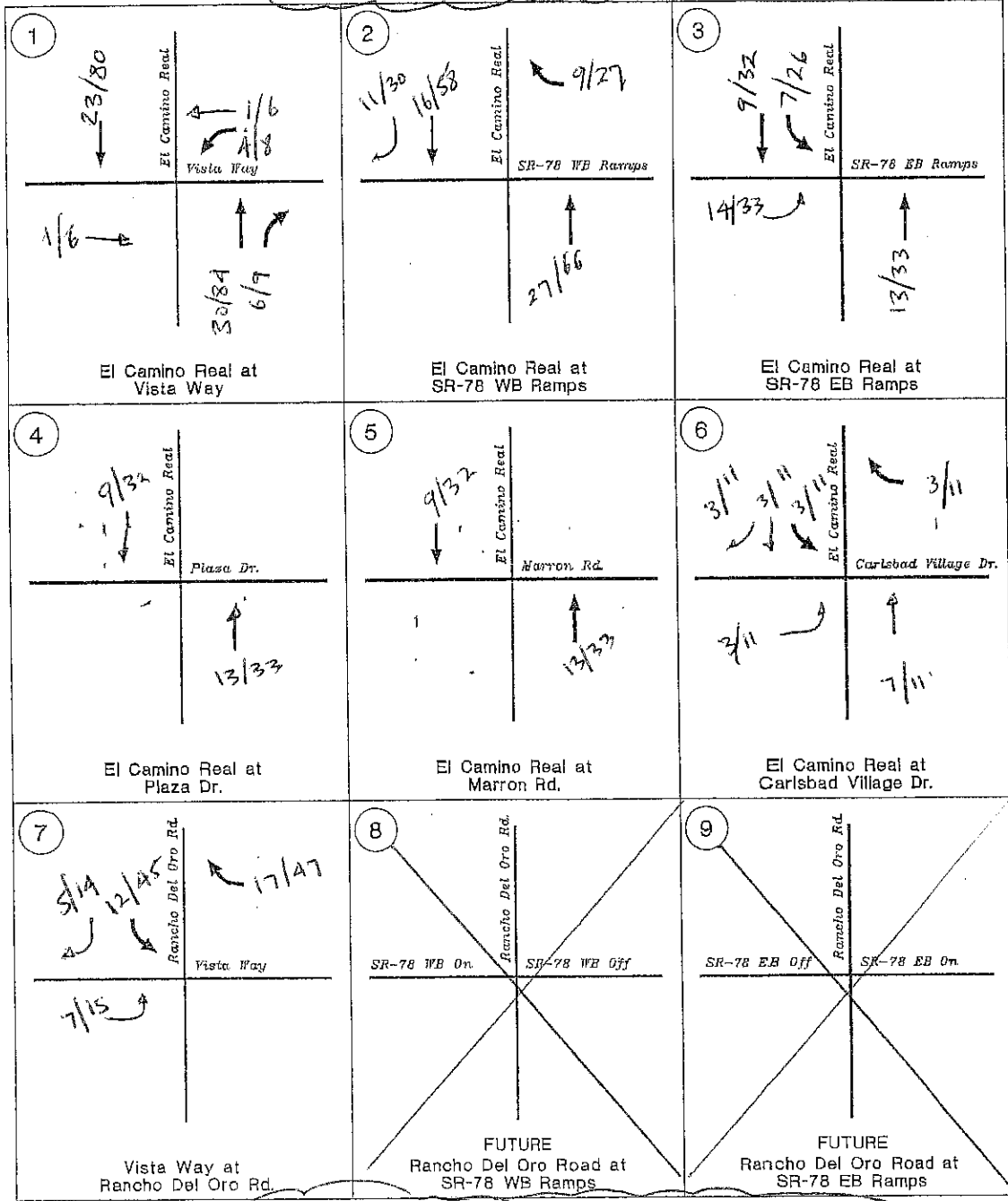
Figure 8-3b

Year 2010 - Project Phase 1 (1A, 1D-1F) + Phase 2 Traffic Volumes
 AM/PM Peak Hours & ADT

EL CERRITO
 (2/11)



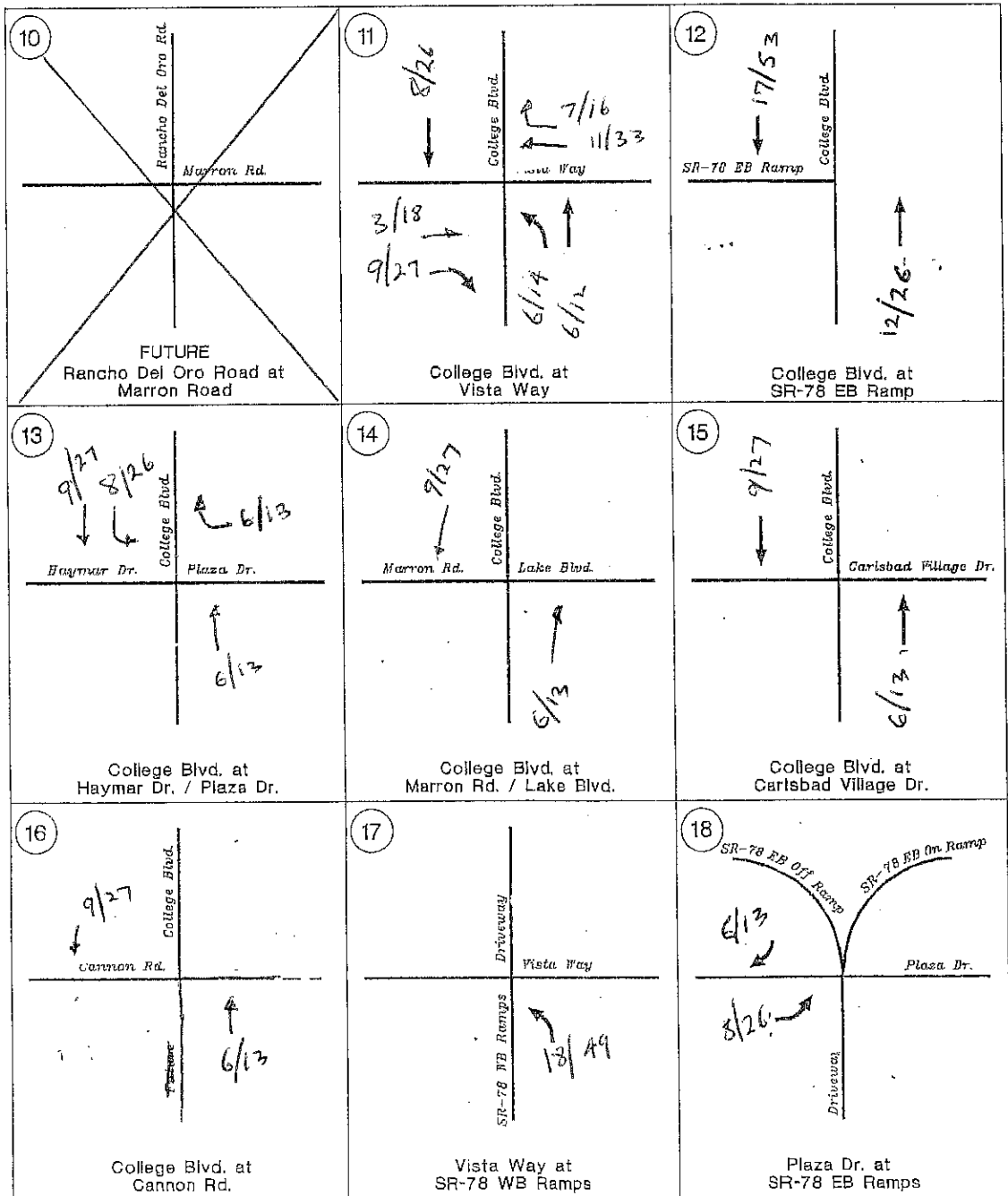
EL CORAZON
PHASE 1 (1A, 1D, 1E) + PHASE 2



EL CORAZON PHASE 1 (1A-1D-1E) + PHASE 2
AM/PM Peak Hour Volumes

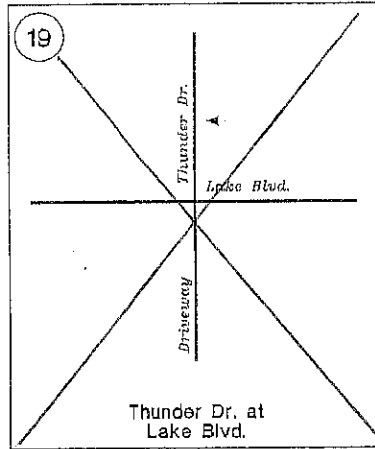


EL-602
10/11



AM/PM Peak Hour Volumes

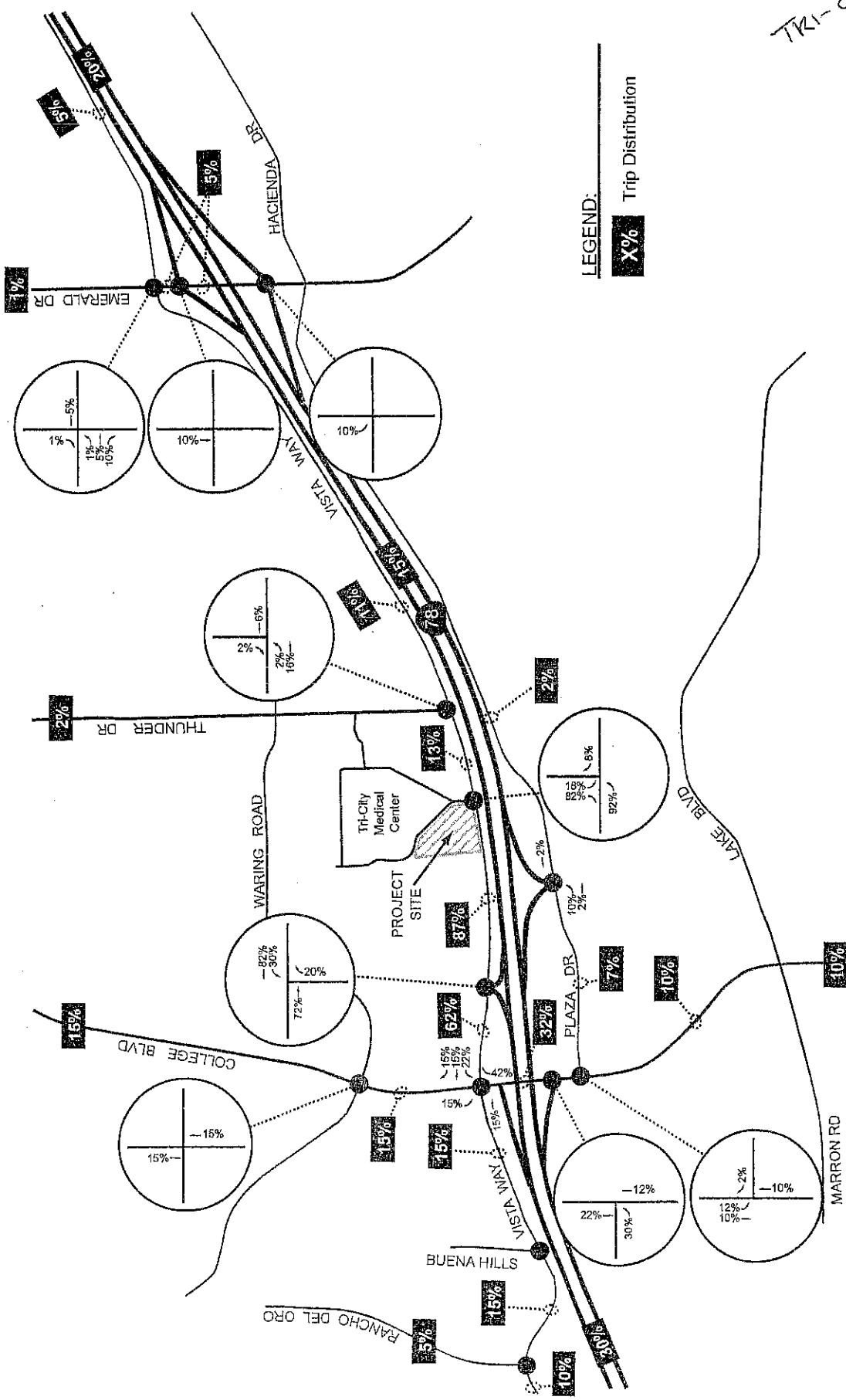




AM/PM Peak Hour Volumes



TRI-CITY (1/4)



LEGEND:

X% Trip Distribution



NOT TO SCALE



PROJECT TRIP DISTRIBUTION

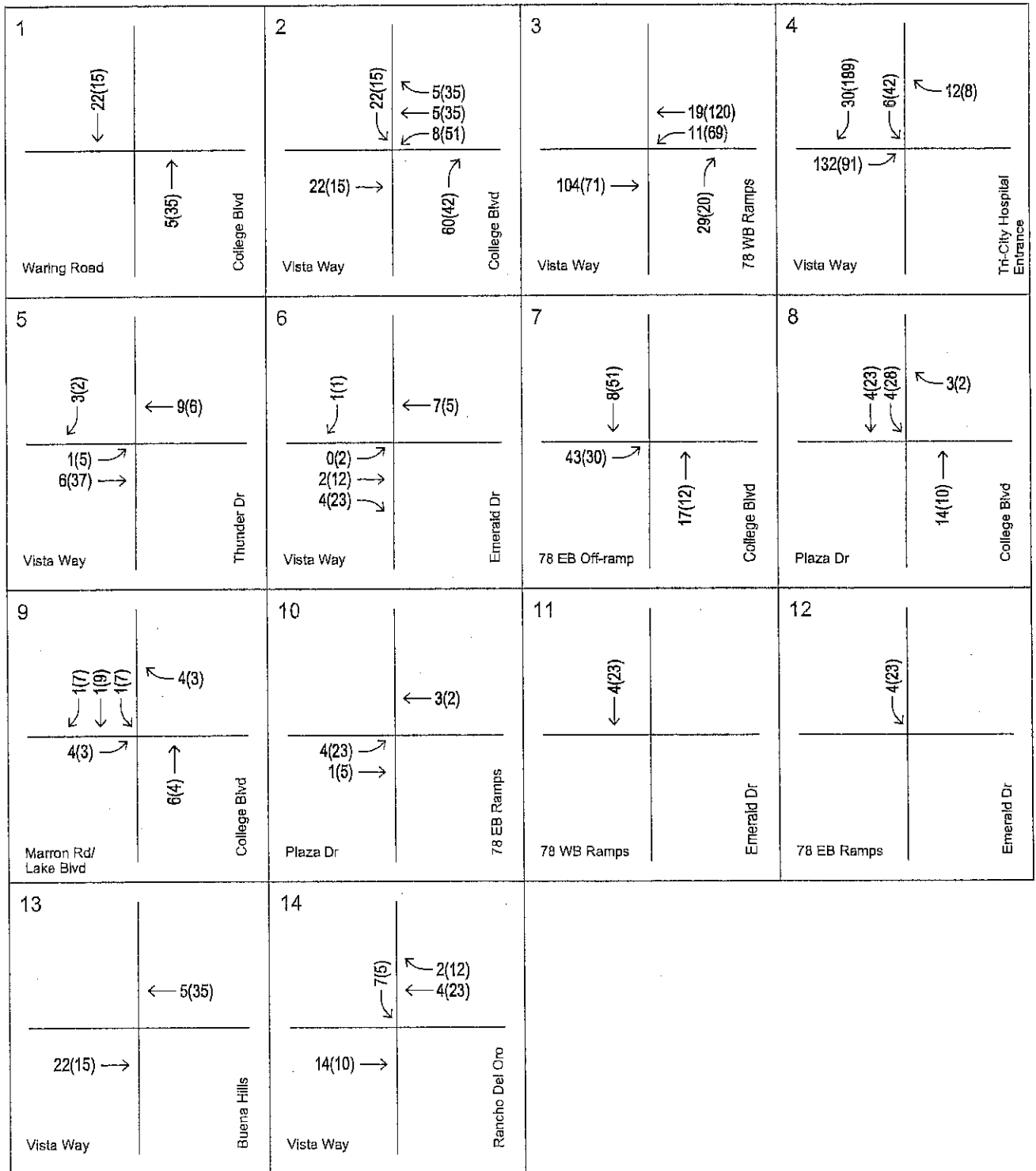
EXHIBIT 7

TRI-CITY
2/18

Tri-City Medical Office Trip Generation

Land Use	Daily (per unit)	AM Peak			PM Peak		
		Total	Inbound	Outbound	Total	Inbound	Outbound
		(of daily)	(% AM)	(% AM)	(of daily)	(% PM)	(% PM)
Trip Generation Rates							
Medical Office (SANDAG)	50	6%	80%	20%	11%	30%	70%
Forecast Project Generated Trips		Size (KSF)					
Medical Office (SANDAG)	3,000	180	144	36	330	99	231
TOTAL	3,000	180	144	36	330	99	231

TR-CITY
3/4



LEGEND

XX(XX) AM/PM PEAK HOUR VOLUME



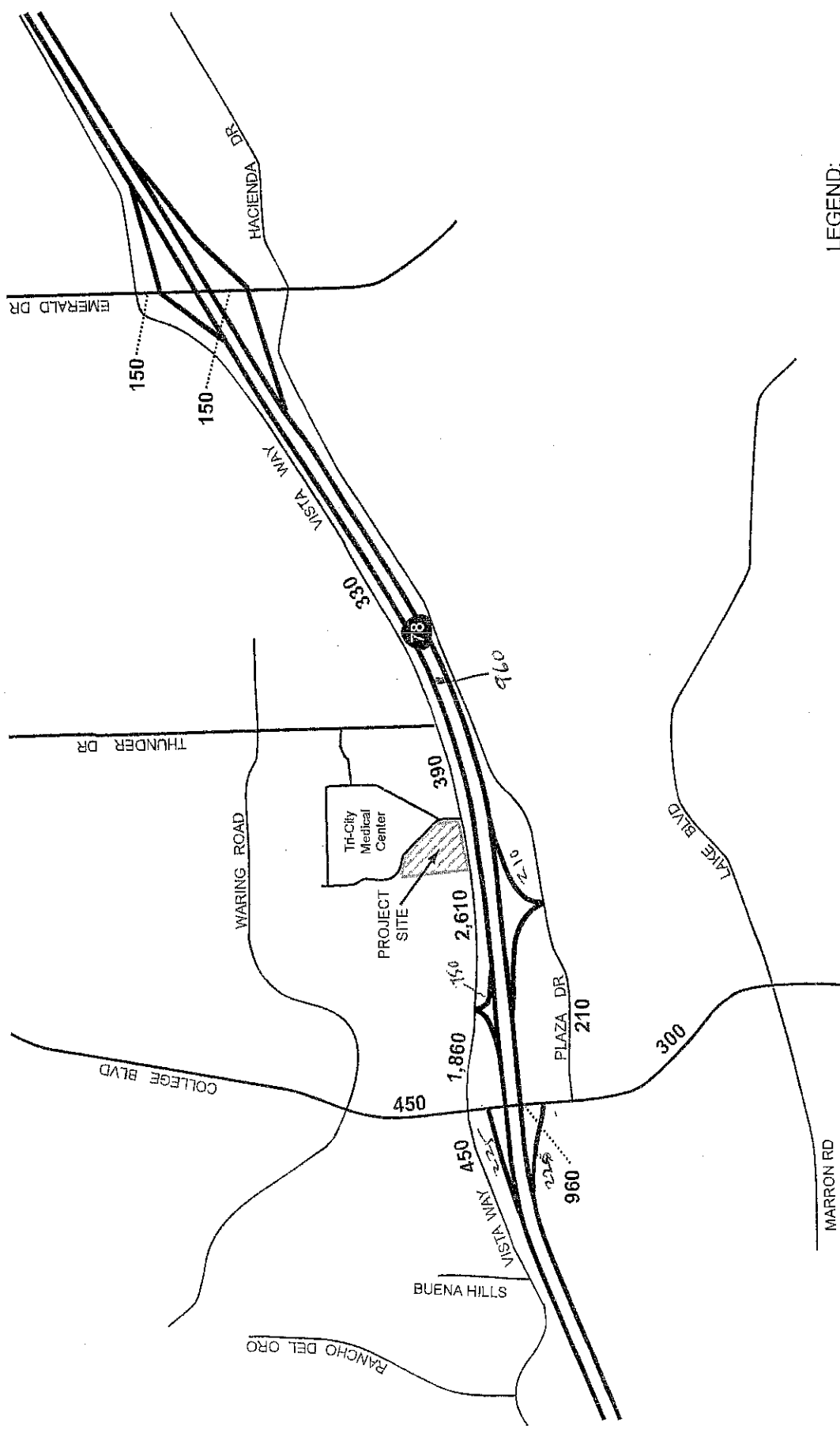
55-100702.003 MAY 2011

PROJECT TRIP ASSIGNMENT

EXHIBIT 8

DAILY PROJECT TRIPS

EXHIBIT 9



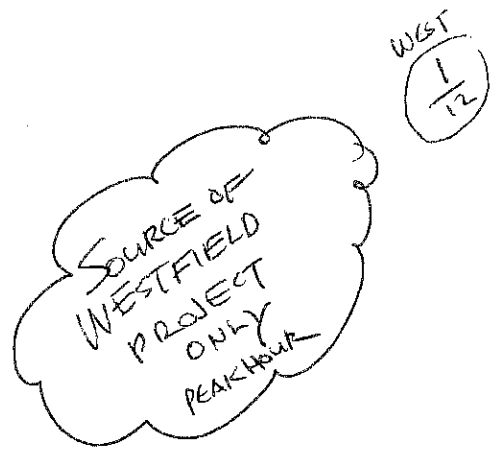
LEGEND:

XX,XXX Project Trips



NOT TO SCALE





TRANSPORTATION STUDY FOR THE WESTFIELD PLAZA CAMINO REAL REVITALIZATION PROJECT

March 2010

Prepared for:

WESTFIELD LLC

Prepared by:

GIBSON TRANSPORTATION CONSULTING, INC.
660 S. Figueroa Street, Suite 1120
Los Angeles, California 90017
(213) 683-0088

Ref: J1017

Trip Generation Estimates for Vacant Leasable Space

The trip generation rates used in this study are those identified for a 'Super Regional Shopping Center' land use in the *Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region*, San Diego Association of Governments (SANDAG), April 2002. These estimates are conservative in that they do not account for trip reductions from pass-by trips. Table 14 provides a summary of the trip generation rates and estimates for the vacant Robinson's-May building. As shown in the table, it is estimated that the existing vacant leasable space would generate a total of 5,186 daily trips on a typical weekday, including approximately 207 morning peak hour trips (145 inbound, 62 outbound) and 519 afternoon peak hour trips (260 inbound, 259 outbound).

Trip Distribution and Assignment

The trip distribution and assignment for traffic from the Project Site is based on the SANDAG model. SANDAG model runs, that isolated trips to and from the Traffic Analysis Zone that contains the Project Site, were used to develop a regional distribution and assignment. This assignment was further refined, at a local level, based on consultation with the City of Carlsbad and City of Oceanside staff.

The Project Site trip distribution is illustrated in Figure 9. As indicated, the trip distribution applied for the Project Site traffic is:

- 20% to/from the north
- 26% to/from the south
- 24% to/from the east
- 11% to/from the west
- 19% trips from within the local Study Area

Traffic volume projections from the Robinson's-May building are illustrated in Figures 10, 11, and 12.

Street Segments – Peak Hour Analysis

WEST
3/12

Existing Baseline street segment peak hour analysis was conducted for all of the street segments in the City of Carlsbad jurisdiction and the two segments under the City of Oceanside jurisdiction that are projected to operate at LOS D. As shown in Table 17, all of the 10 street segments in the City of Carlsbad are projected to operate at LOS D or better, during both the morning and afternoon peak hours. However, both of the street segments in the City of Oceanside are projected to operate at LOS E or F during both peak hours. The City of Oceanside's standard for an acceptable LOS for peak hour street segment operations is LOS D. Detailed worksheets for the street segments in the City of Oceanside are provided in Appendix E.

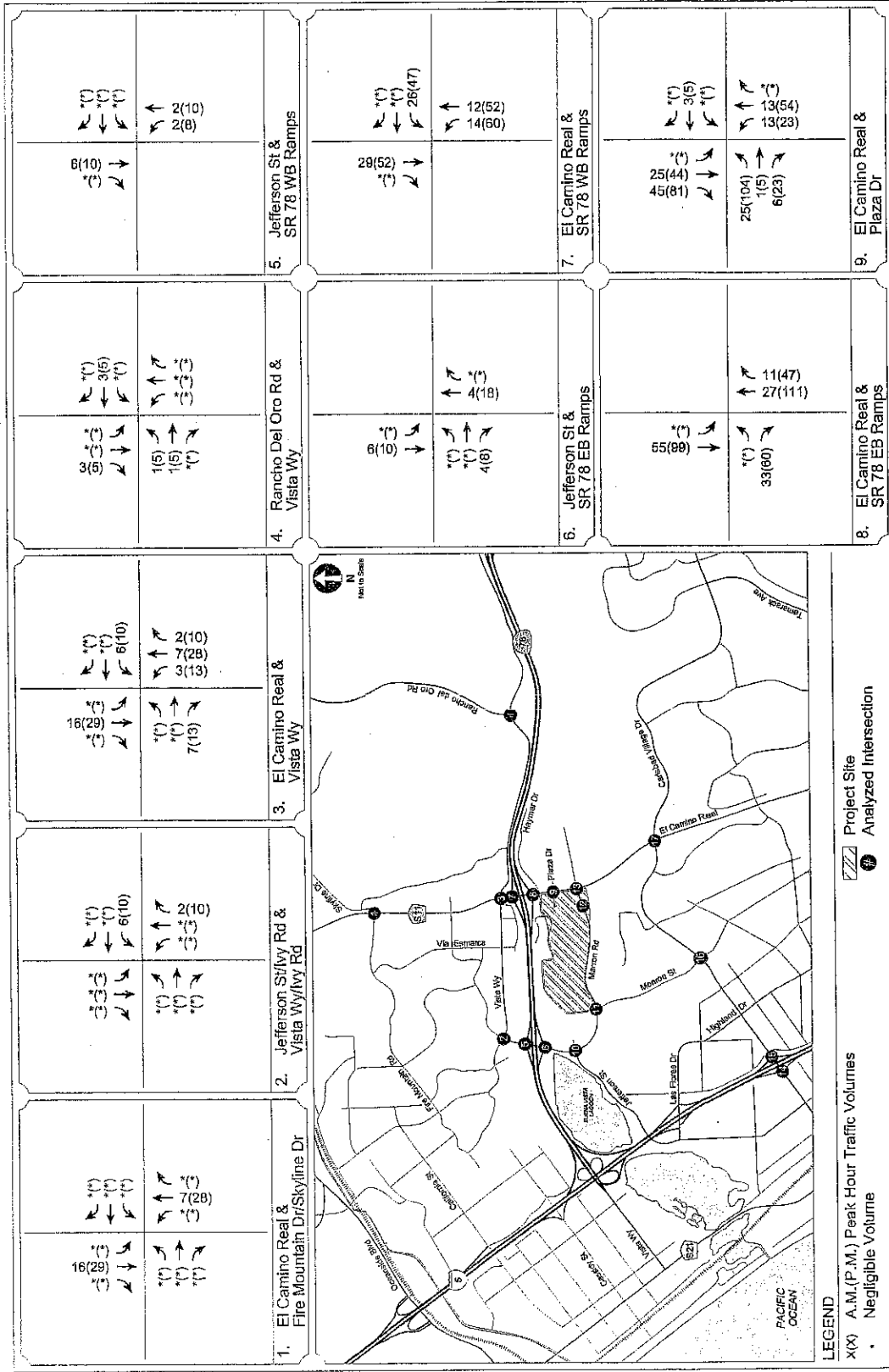
PROJECT TRIP GENERATION AND TRAFFIC PROJECTIONS

Trip Generation

Similar to the Robinson's-May building, trip generation estimates for the Project were developed using trip generation rates those identified for a 'Super Regional Shopping Center' land use in the *Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region*. Table 18 provides a summary of the trip generation rates and estimates for the development proposed under the Project. As shown in the table, it is estimated that the Project would generate a total of 1,240 net new daily trips on a typical weekday, including approximately 49 morning peak hour trips (35 inbound, 14 outbound) and 124 afternoon peak hour trips (62 inbound, 62 outbound). These estimates are conservative in that they do not account for trip reductions from pass-by trips.

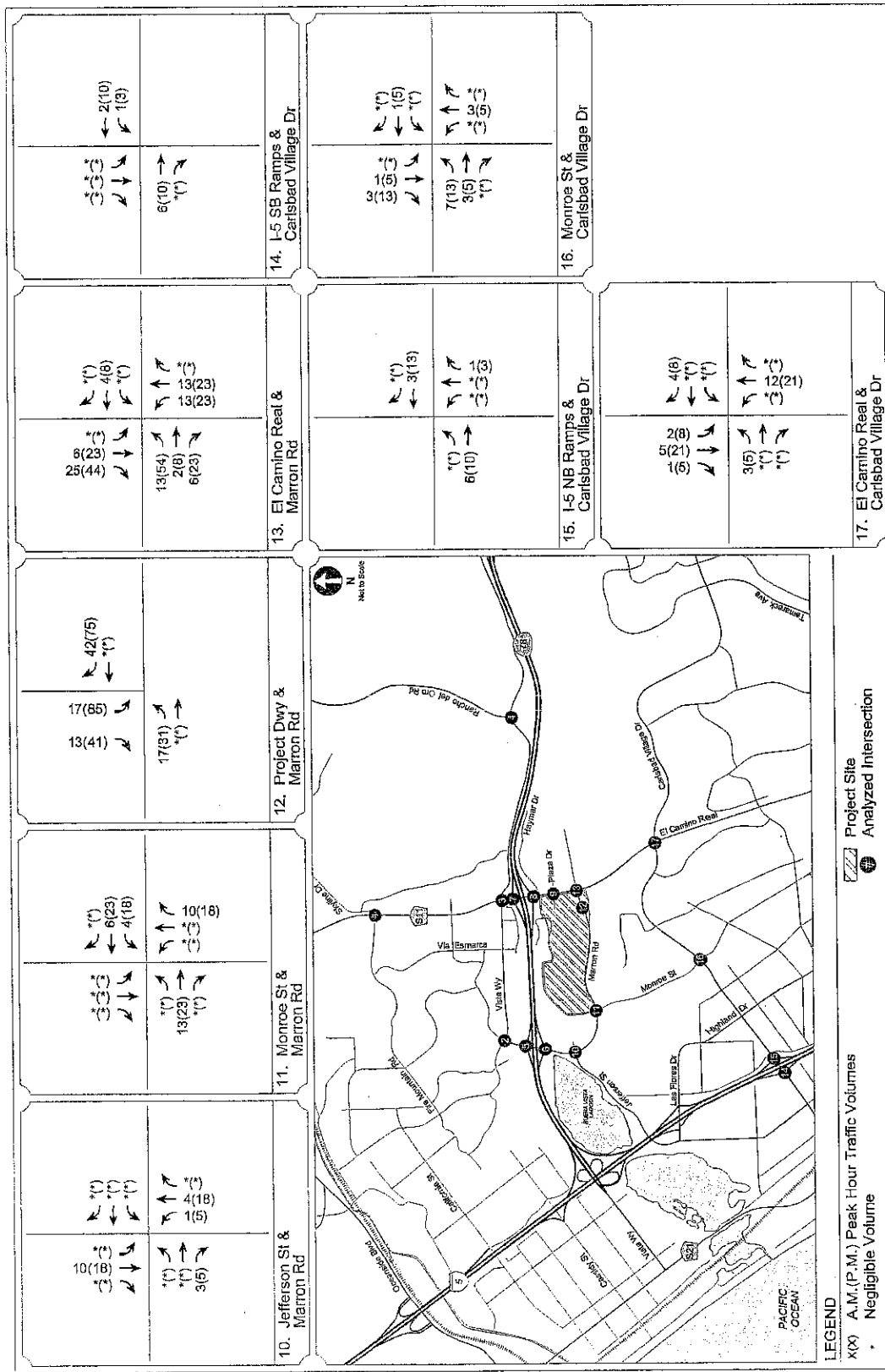
Project Circulation

Access to the land uses north of Marron Road would be the same as those under Existing Conditions. The existing cinema on the parcel south of Marron Road currently has access to parking via a right-turn only driveway just west of the intersection of El Camino Real & Marron Road. Access to the new retail proposed to be built on this parcel as part of the Project would



TRAFFIC FROM VACANT LEASABLE SPACE
INTERSECTION PEAK HOUR TRAFFIC VOLUMES

WEST
8/12



TRAFFIC FROM VACANT LEASABLE SPACE
INTERSECTION PEAK HOUR TRAFFIC VOLUMES

6.65
12

WEST
6/12

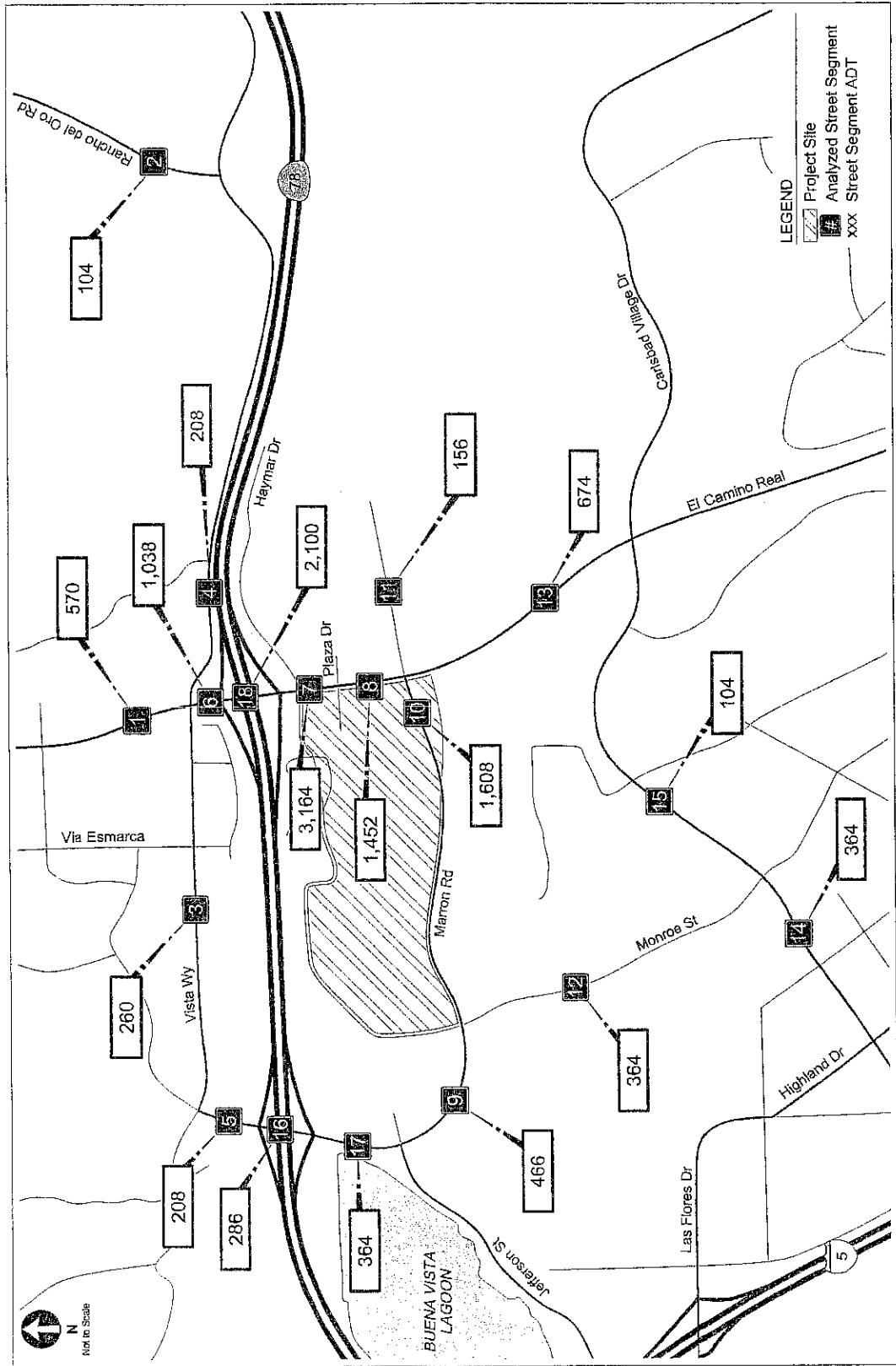
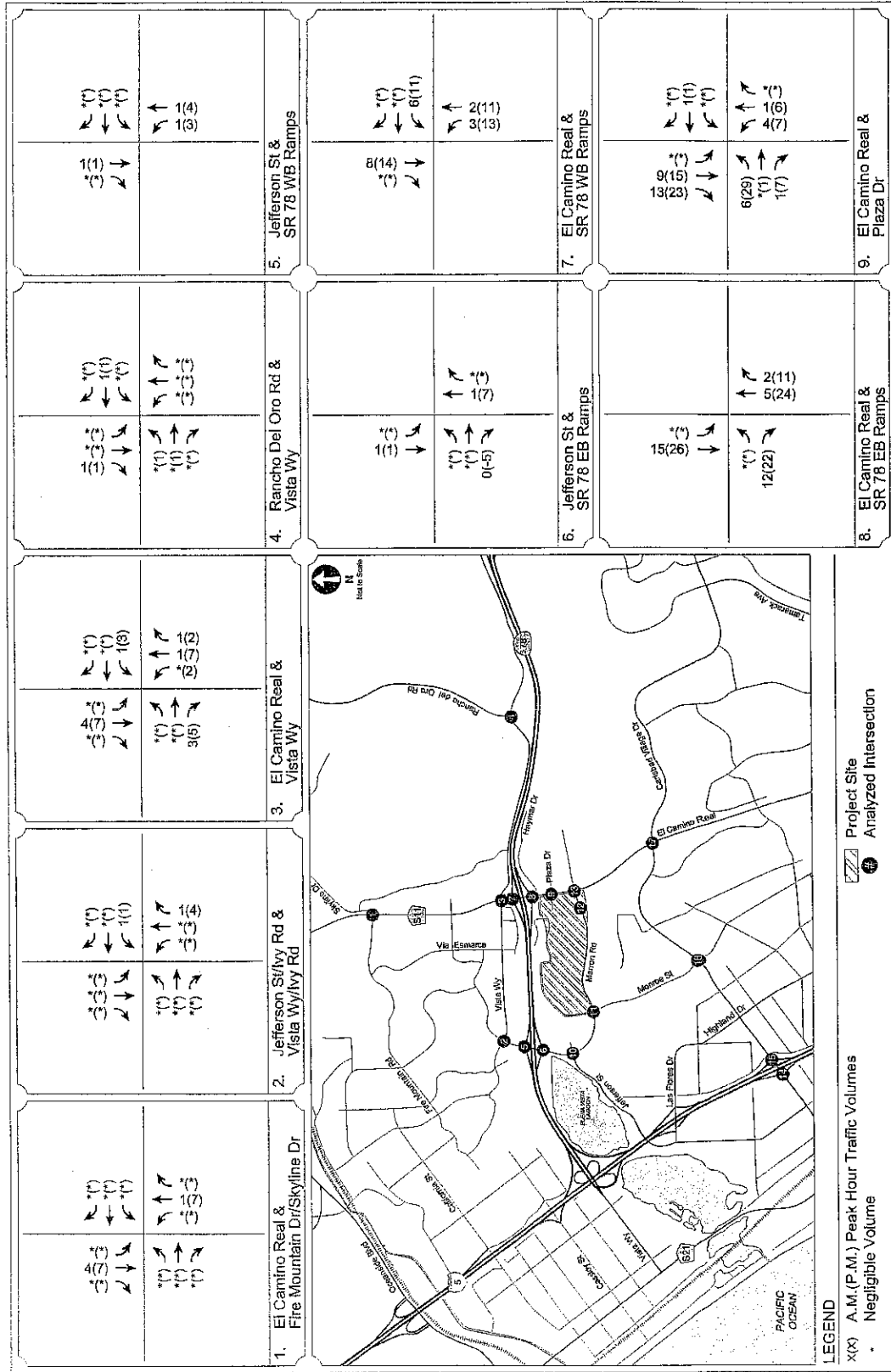
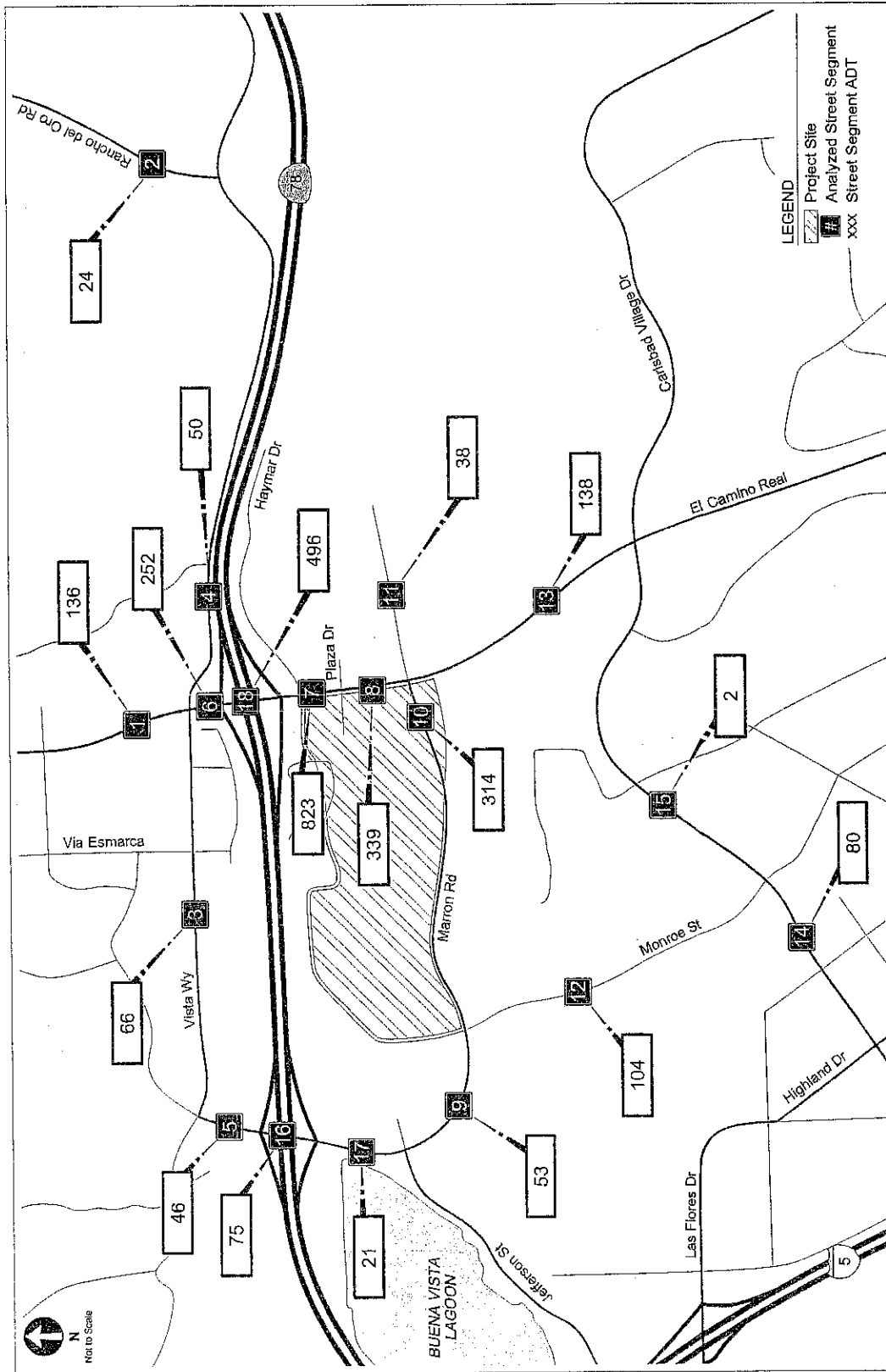


FIGURE
11



SCENARIOS 3 AND 5: PROJECT-ONLY
INTERSECTION PEAK HOUR TRAFFIC VOLUMES

WEST
12/1



SCENARIOS 3 AND 5: PROJECT-ONLY
STREET SEGMENT DAILY TRAFFIC VOLUMES

FIGURE
19

TABLE 14.
TRIP GENERATION ESTIMATES FOR VACANT LEASABLE SPACE

TRIP GENERATION RATES [a]									
Land Use	Rate	Daily	A.M. Peak Hour			P.M. Peak Hour			Total
			In	Out	Total	In	Out	Total	
Super Regional Shopping Center	per 1,000 GLA Square Feet ¹	35.00	70%	30%	1.40	50%	50%	3.50	

TRIP GENERATION ESTIMATES									
Land Use	Size	Daily	A.M. Peak Hour			P.M. Peak Hour			Total
			In	Out	Total	In	Out	Total	
Existing Robinson-May's Building	148,159 GLA sf	5,186	145	62	207	260	259	519	
TOTAL TRIPS		5,186	145	62	207	260	259	519	

Notes:

¹ 1,000 GLA square feet = 1 GLA ksf.

[a] Source: *Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region*, SANDAG, April 2002.

WEST
10
12
68

TABLE 18
PROJECT TRIP GENERATION ESTIMATES

TRIP GENERATION RATES [a]								
Land Use	Rate	Daily	A.M. Peak Hour			P.M. Peak Hour		
			In	Out	Total	In	Out	Total
Super Regional Shopping Center	per 1,000 GLA Square Feet ¹	35.00	70%	30%	1.40	50%	50%	3.50

TRIP GENERATION ESTIMATES								
Land Use	Size	Daily	A.M. Peak Hour			P.M. Peak Hour		
			In	Out	Total	In	Out	Total
<u>Existing</u> Super Regional Shopping Center	1,151,092 GLA sf	40,288	1,128	484	1,612	2,015	2,014	4,029
<u>Proposed</u> Super Regional Shopping Center	1,186,509 GLA sf	41,528	1,163	498	1,661	2,077	2,076	4,153
TOTAL NET NEW TRIPS		1,240	35	14	49	62	62	124

Notes:

¹ 1,000 GLA square feet = 1 GLA ksf.

[a] Source: *Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region*, SANDAG, April 2002.

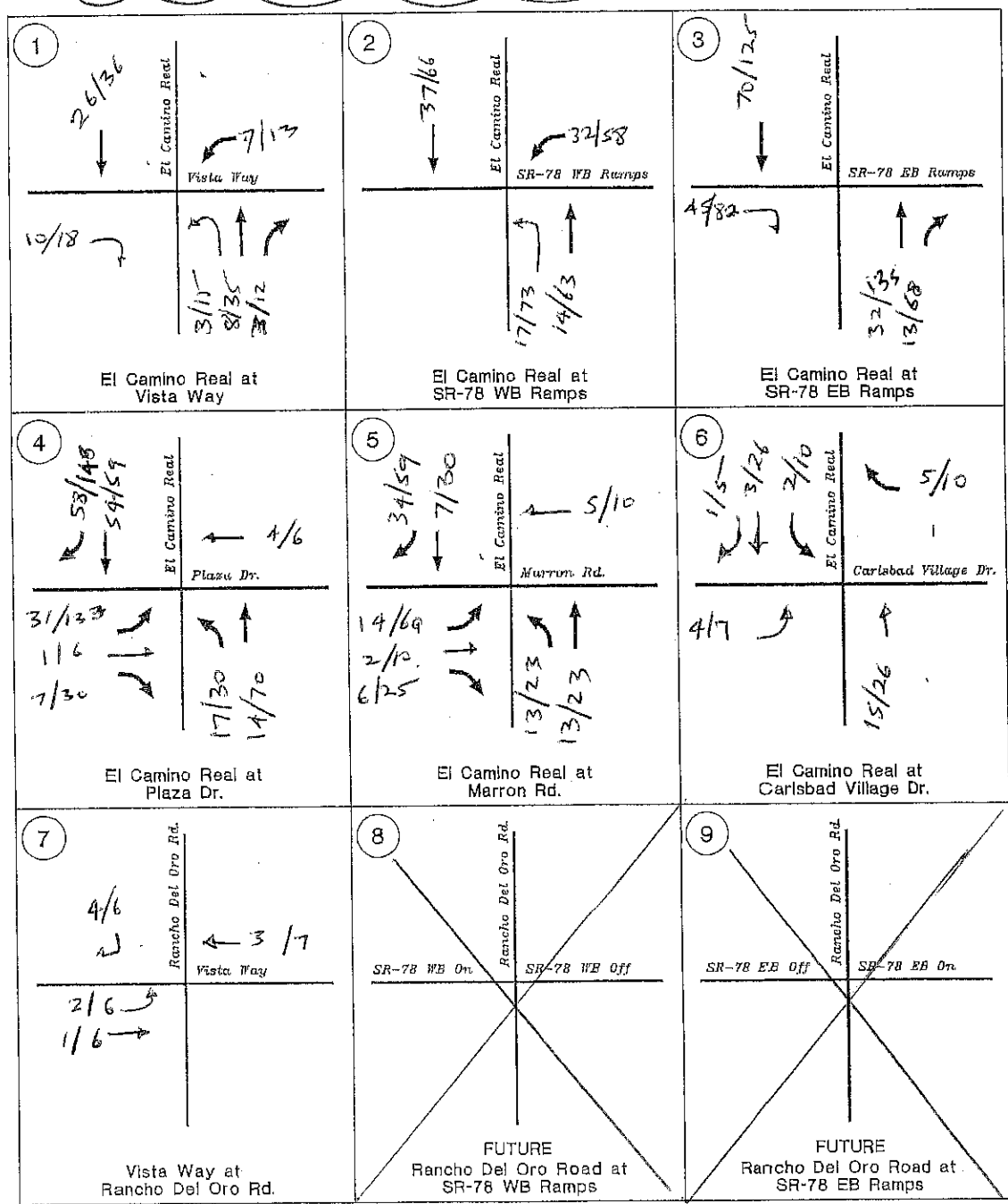
WEST
11/12

WEST
12/12

VACANT RETAIL PLUS EXPANSION
WESTFIELD PLAZA CAMINO REAL

ADD 10A+10B
18A+18B

Page 1 of 1



WESTFIELD PLAZA PROJECT ONLY WORKSHEET
AM/PM Peak Hour Volumes



PROJECT ONLY
ROBERTSON RANCH

RR
1/13

Robertson Ranch
Calavera Hills II, LLC

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September 1, 2005

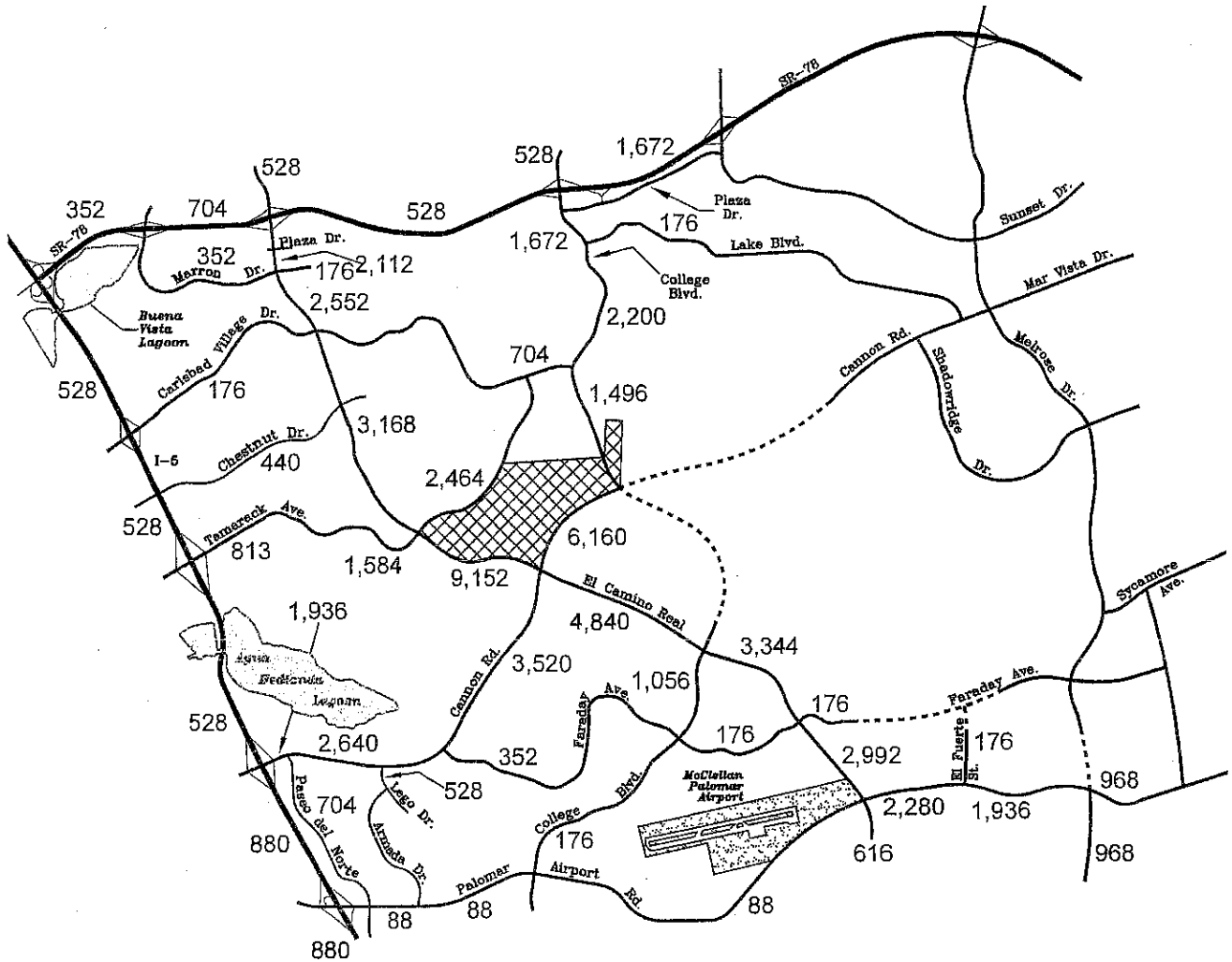
TABLE 4-2
Project Trip Generation Without School

PA	Use	Amount	Rate	ADT	AM PEAK HOUR					PM PEAK HOUR				
					%	#	Split	In	Out	%	#	Split	In	Out
Access From El Camino Real & Tamarack Avenue														
1	Multi-Family	27 DU	8 /DU	216	8	17	2 : 8	3	14	10	22	7 : 3	15	6
2	RV Storage	2.3 AC	30 /AC	69	6	4	5 : 5	2	2	9	6	5 : 5	3	3
3	Single Family	82 DU	10 /DU	820	8	66	3 : 7	20	46	10	82	7 : 3	57	25
4	Community Recreation	1.0 AC	50 /AC	50	13	7	5 : 5	3	4	9	5	5 : 5	3	2
5	Single Family	25 DU	10 /DU	250	8	20	3 : 7	6	14	10	25	7 : 3	18	8
6	Single Family	61 DU	10 /DU	610	8	49	3 : 7	15	34	10	61	7 : 3	43	18
7	Multi-Family	201 DU	6 /DU	1,206	8	96	2 : 8	19	77	9	109	7 : 3	76	33
8	Multi-Family	195 DU	6 /DU	1,170	8	94	2 : 8	19	75	9	105	7 : 3	74	31
9	Single Family	45 DU	10 /DU	450	8	36	3 : 7	11	25	10	45	7 : 3	32	13
10	Single Family	55 DU	10 /DU	550	8	44	3 : 7	13	31	10	55	7 : 3	39	16
11 ¹	Comm. Commercial	8.0 AC	700 /AC	5,600	4	224	6 : 4	134	90	10	560	5 : 5	280	280
11 ¹	Community Facilities	5.0 AC	50 /AC	250	13	33	5 : 5	16	17	9	23	5 : 5	12	11
Subtotal				11,241		690		261	429		1,098		652	446
Access From Cannon Road														
12	Park	13.5 AC	50 /AC	675	13	88	5 : 5	44	44	9	61	5 : 5	31	30
13	Multi-Family	138 DU	6 /DU	828	8	66	2 : 8	13	53	9	75	7 : 3	53	22
14	Multi-Family	69 DU	6 /DU	414	8	33	2 : 8	7	26	9	37	7 : 3	26	11
15	Multi-Family	71 DU	6 /DU	426	8	34	2 : 8	7	27	9	38	7 : 3	27	11
16	Single Family	100 DU	10 /DU	1,000	8	80	3 : 7	24	56	10	100	7 : 3	70	30
17	Single Family	110 DU	10 /DU	1,100	8	88	3 : 7	26	62	10	110	7 : 3	77	33
18	Single Family	100 DU	10 /DU	1,000	8	80	3 : 7	24	56	10	100	7 : 3	70	30
19	Community Recreation	1.6 AC	50 /AC	80	13	10	5 : 5	5	5	9	7	5 : 5	4	3
21	Courtyard Homes	84 DU	8 /DU	672	8	54	2 : 8	11	43	10	67	7 : 3	47	20
22	Courtyard Homes	20 DU	8 /DU	160	8	13	2 : 8	3	10	10	16	7 : 3	11	5
Subtotal				6,355		546		164	382		603		411	192
Total				17,596		1,236		425	811		1,701		1,063	638

¹ = Planning Area 11 is designated for dual use with a minimum of 5.0 acres of community facilities.

3101-Tab4-2.wpd

RR
2/13



LEGEND

----- = Future Streets

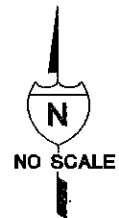


FIGURE 5-2
Project Only Average Daily Traffic
For Existing Conditions

RR
3/13

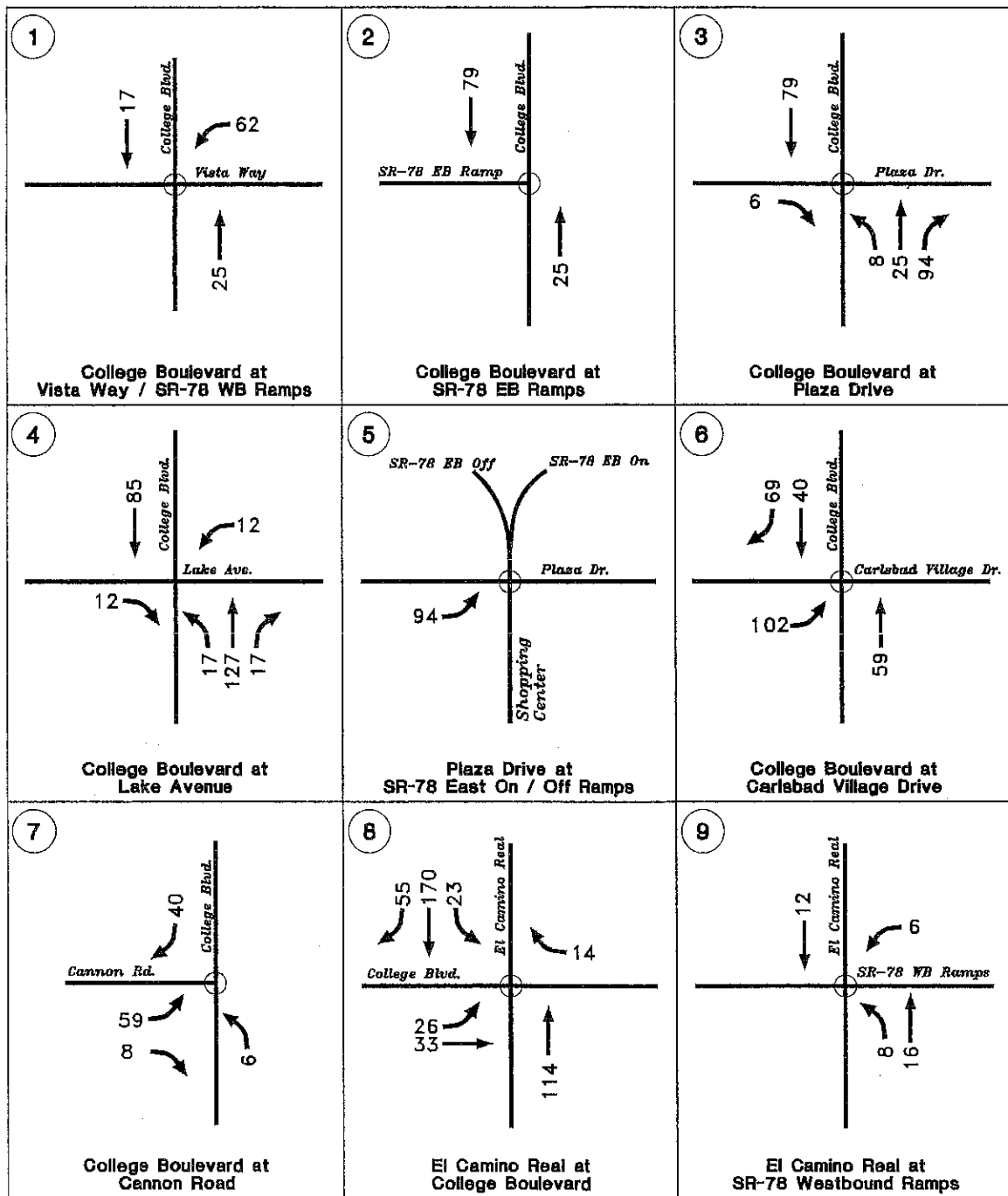


FIGURE 6-3
Year 2010 Project Only AM Peak Hour Traffic

RR
4/13-

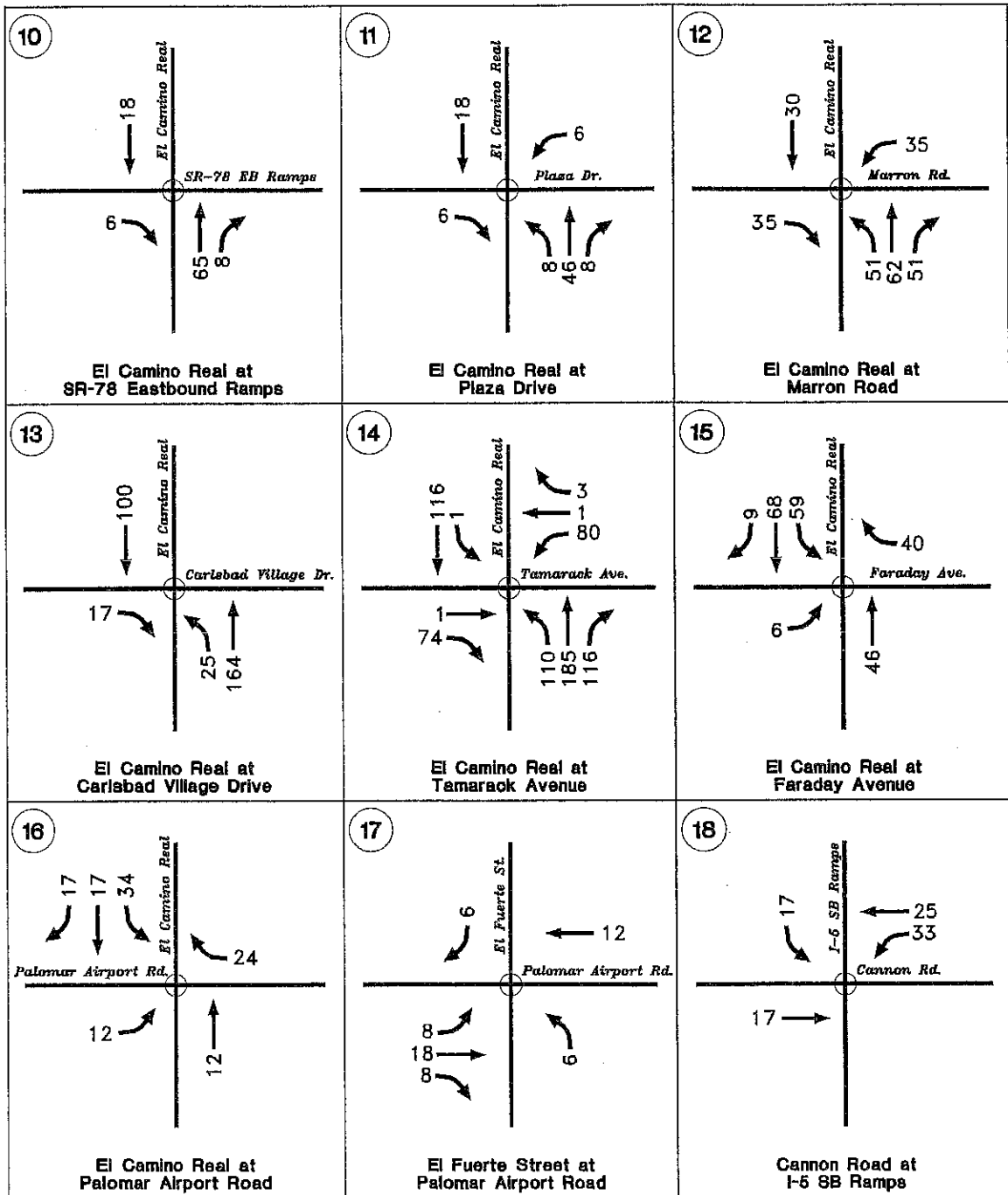


FIGURE 6-3
Year 2010 Project Only AM Peak Hour Traffic

RR
5/13

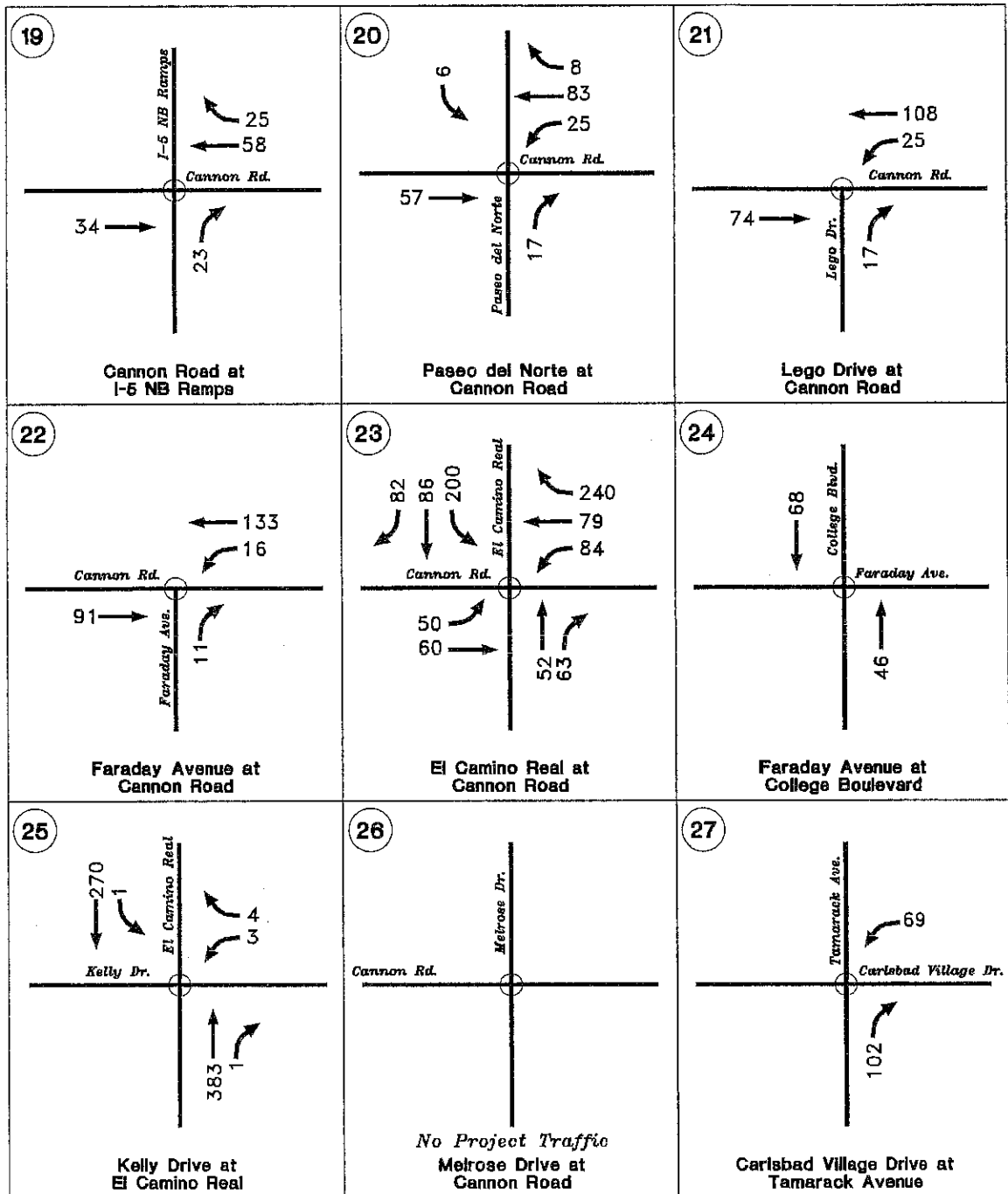


FIGURE 6-3
Year 2010 Project Only AM Peak Hour Traffic

RR
6/13

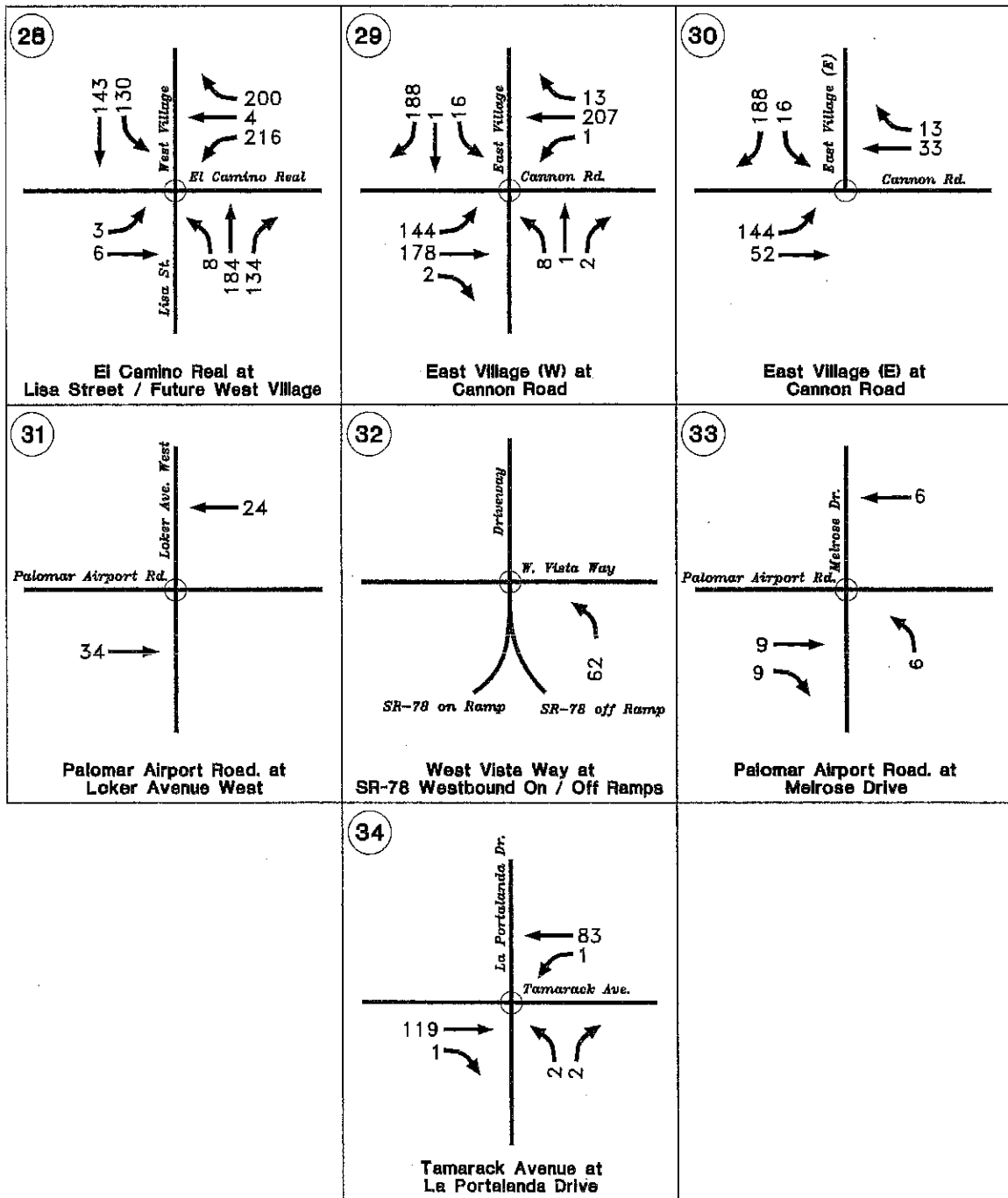


FIGURE 6-3
Year 2010 Project Only AM Peak Hour Traffic

RR
7/13

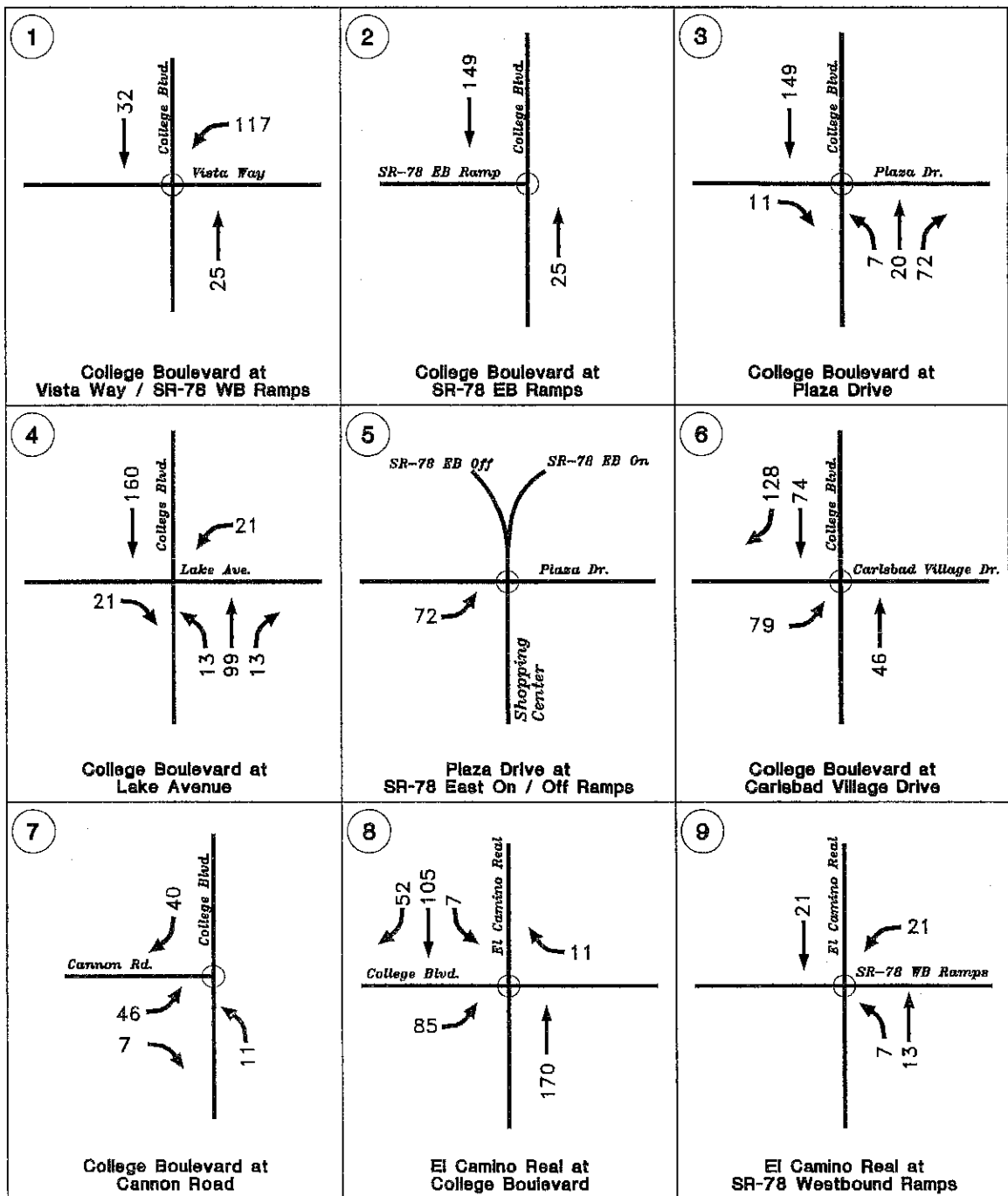


FIGURE 6-4
Year 2010 Project Only PM Peak Hour Traffic

RR
8/13

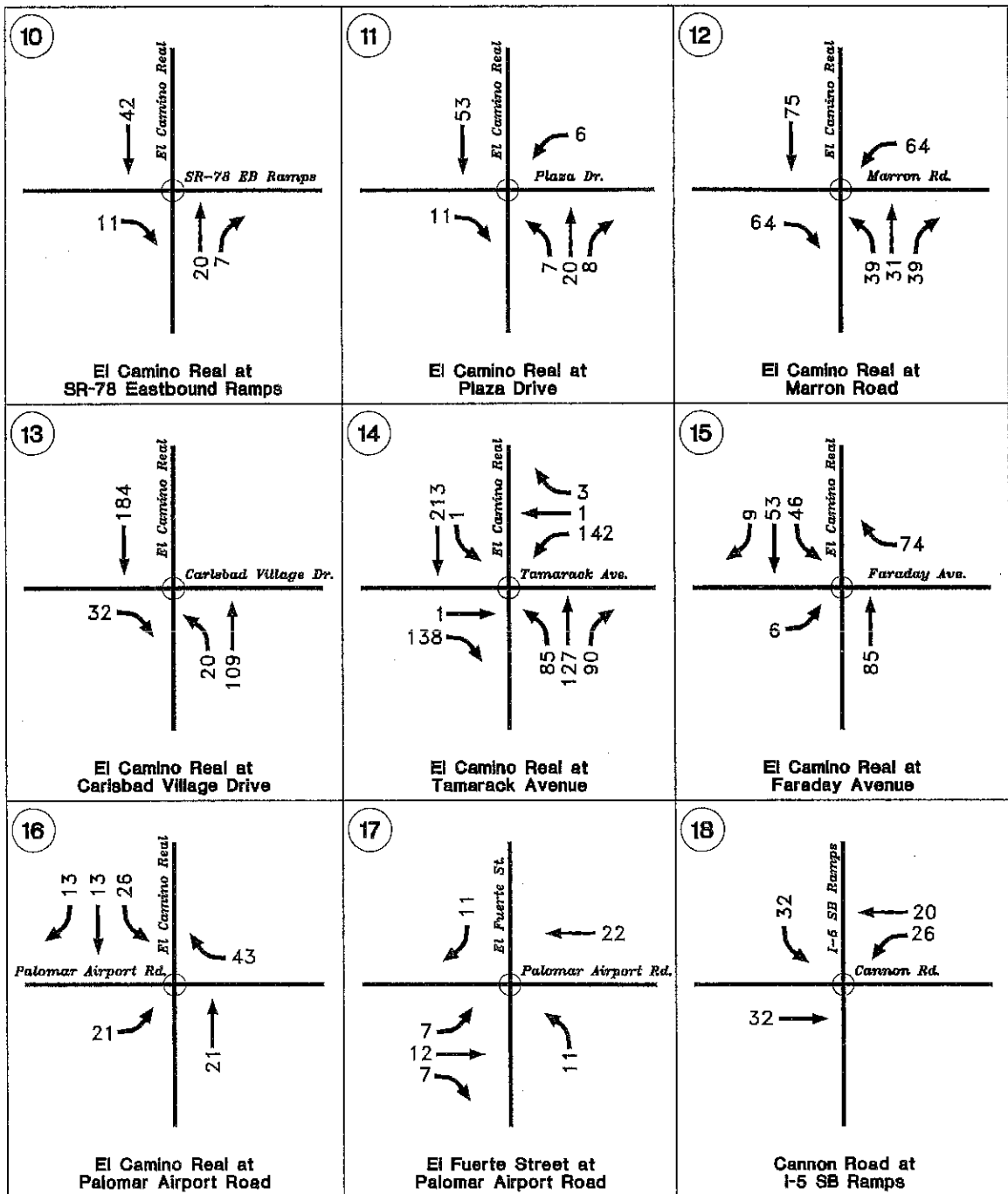


FIGURE 6-4
Year 2010 Project Only PM Peak Hour Traffic

RR
9/13

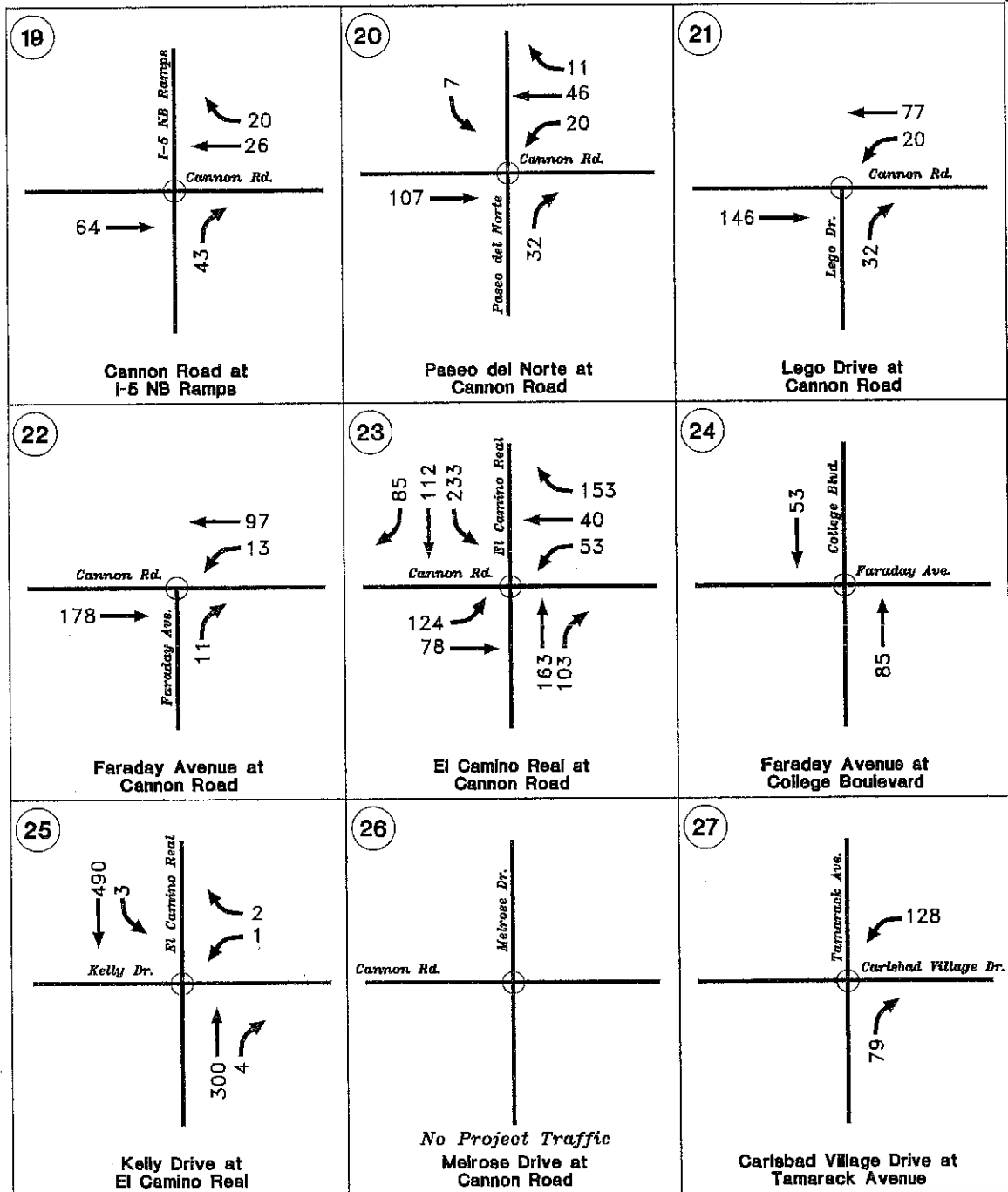


FIGURE 6-4
Year 2010 Project Only PM Peak Hour Traffic

R2
10/12

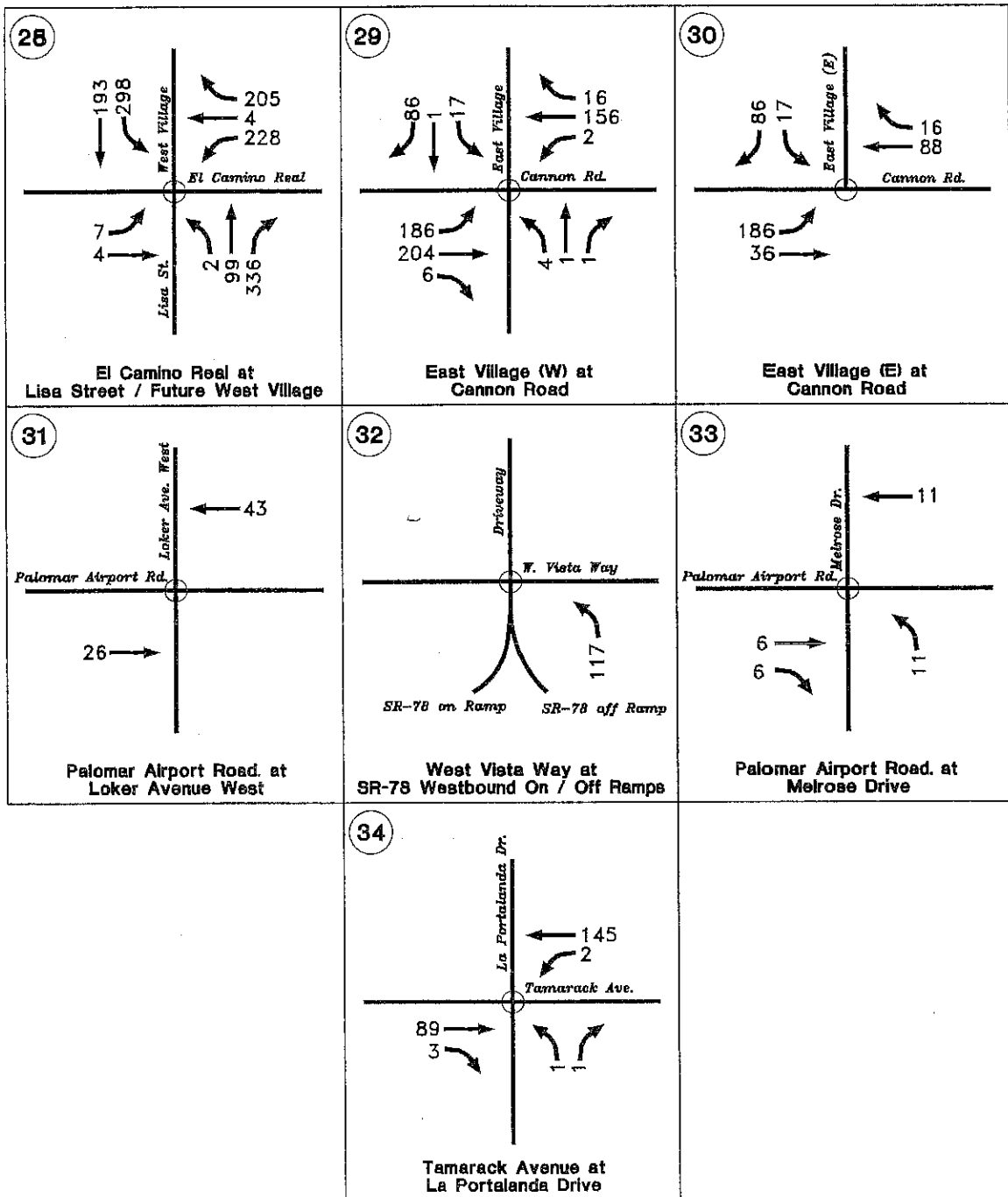
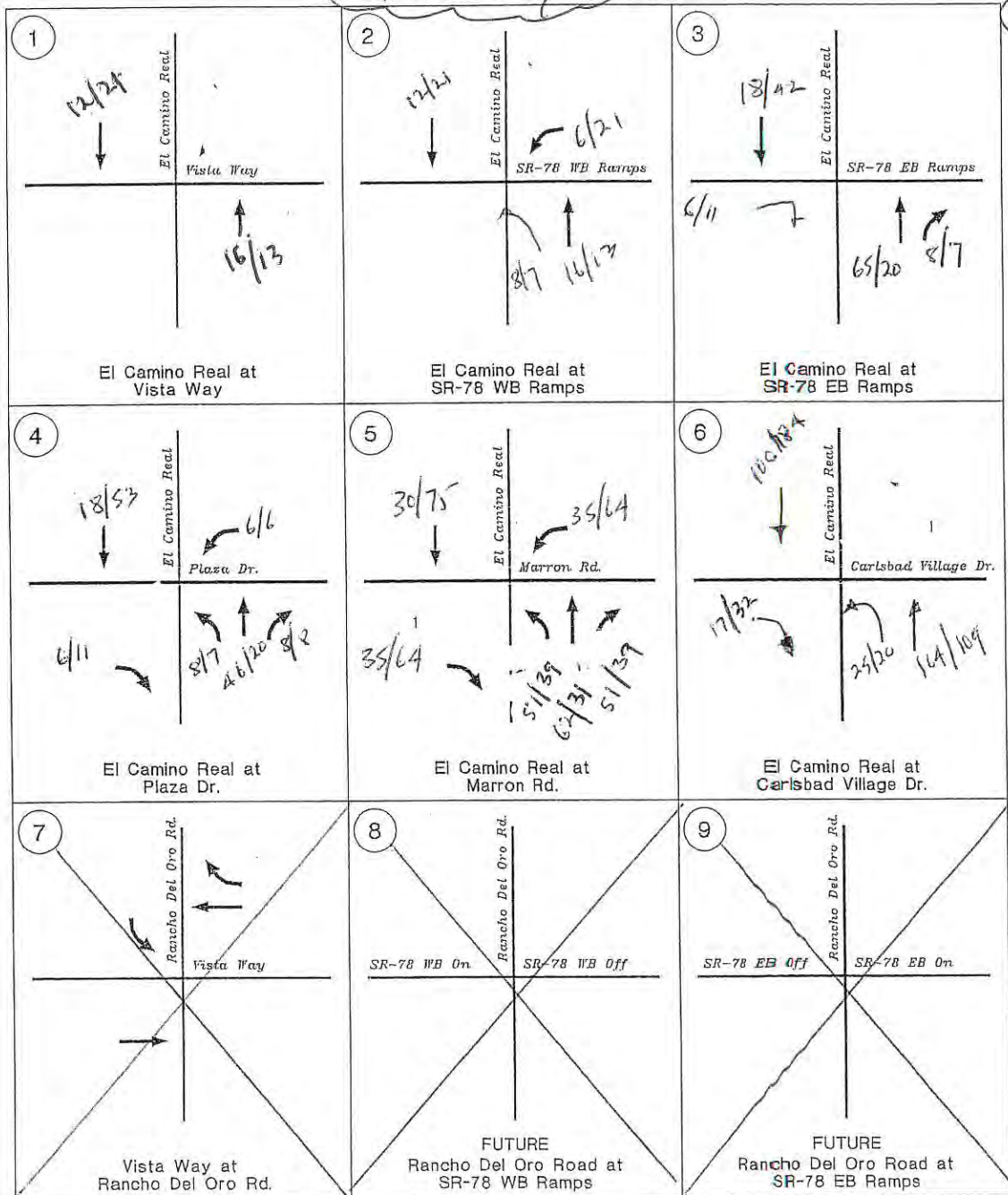


FIGURE 6-4
Year 2010 Project Only PM Peak Hour Traffic

ROBERTSON RANCH
PROJECT ONLY

RR
11/13



ROBERTSON RANCH
PROJECT ONLY AM/PM Peak Hour Volumes
No RDO Interchange / No RDO Extension / No Marron Road



RR
12/13

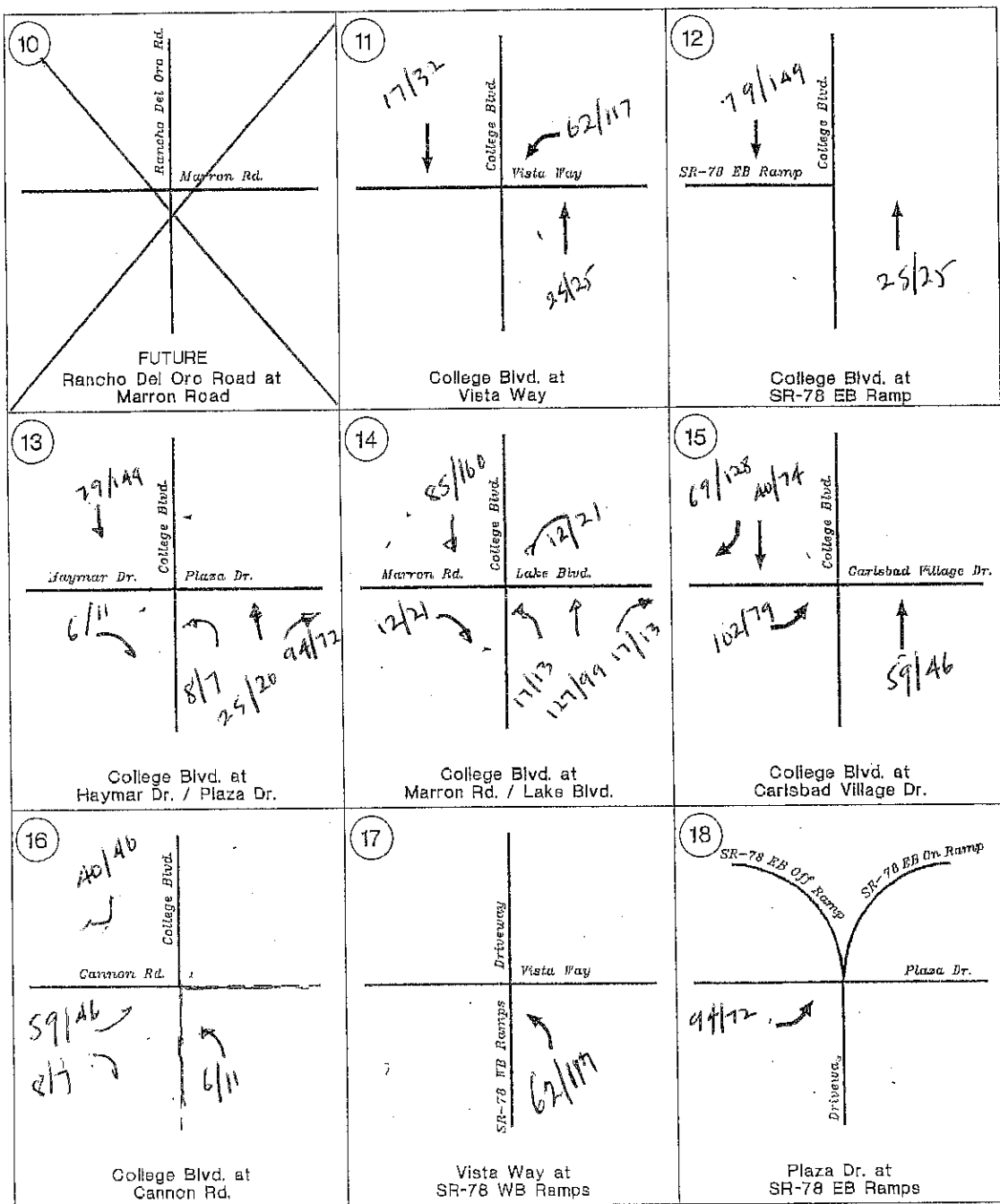


FIGURE
AM/PM Peak Hour Volumes
No RDO Interchange / No RDO Extension / No Marron Road

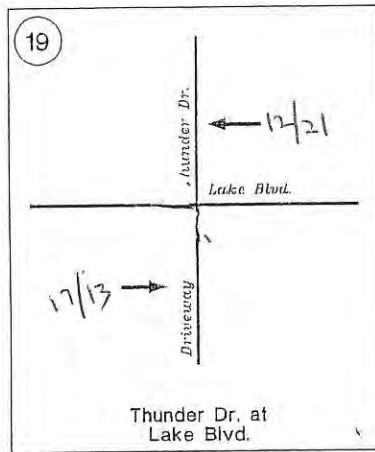


FIGURE
AM/PM Peak Hour Volumes
No RDO Interchange / No RDO Extension / No Marron Road



PALOMAR
1/4

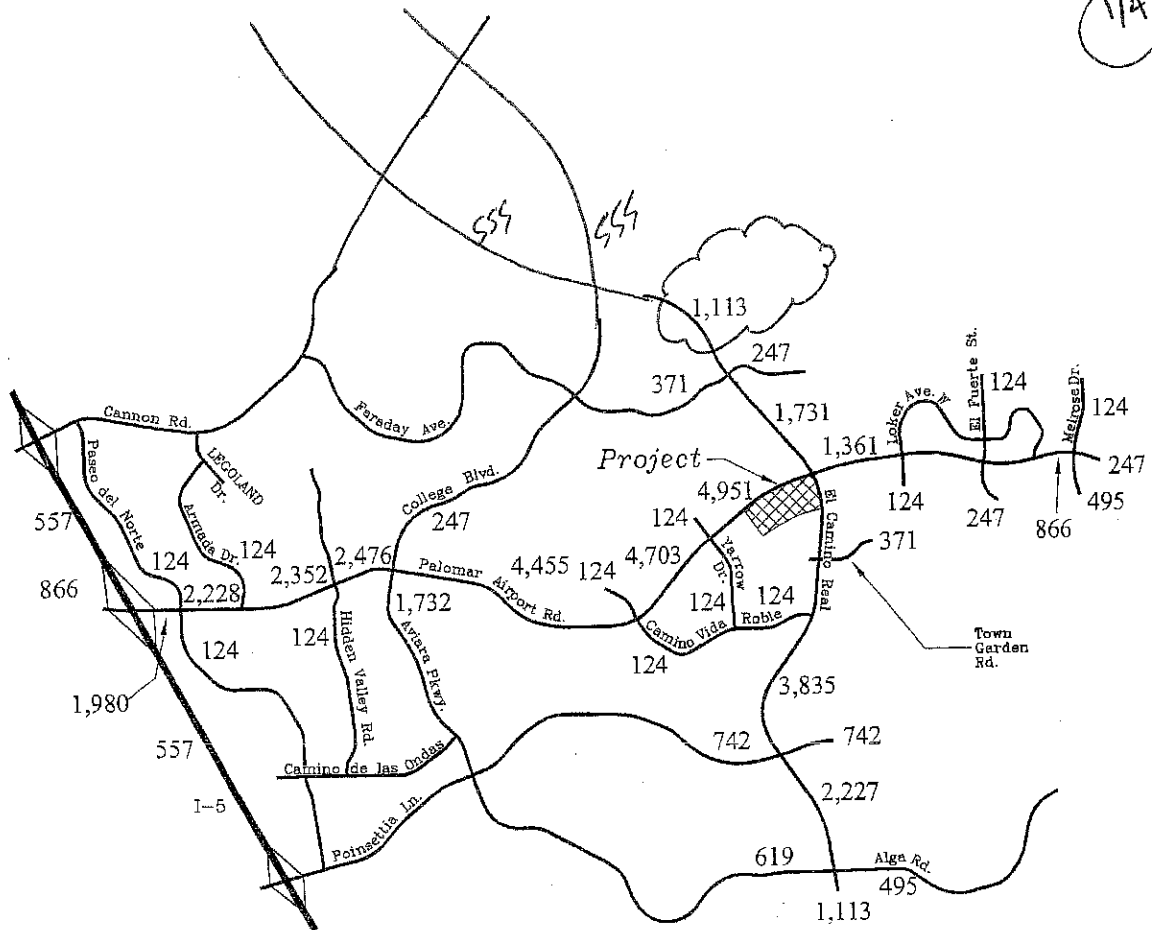
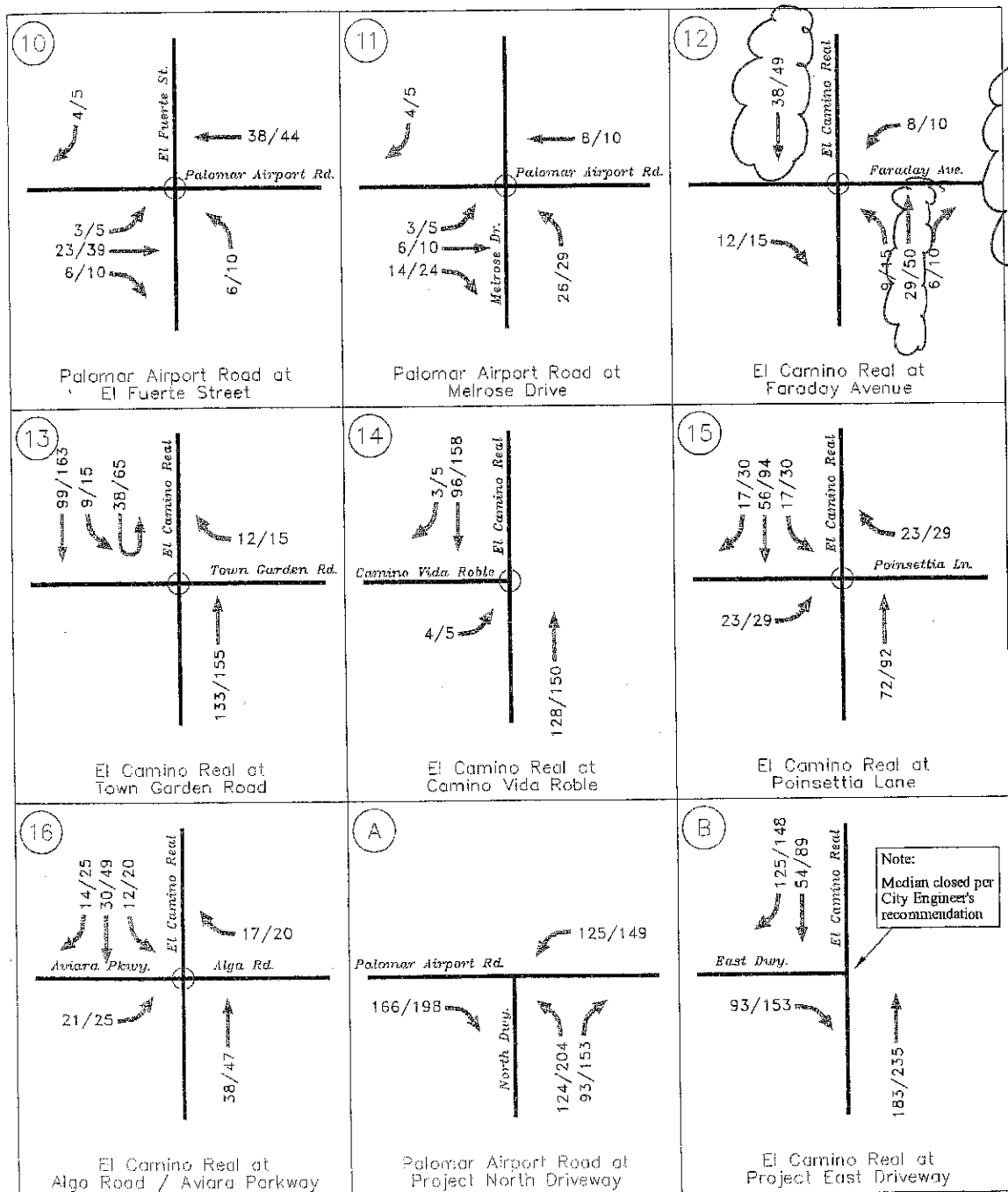


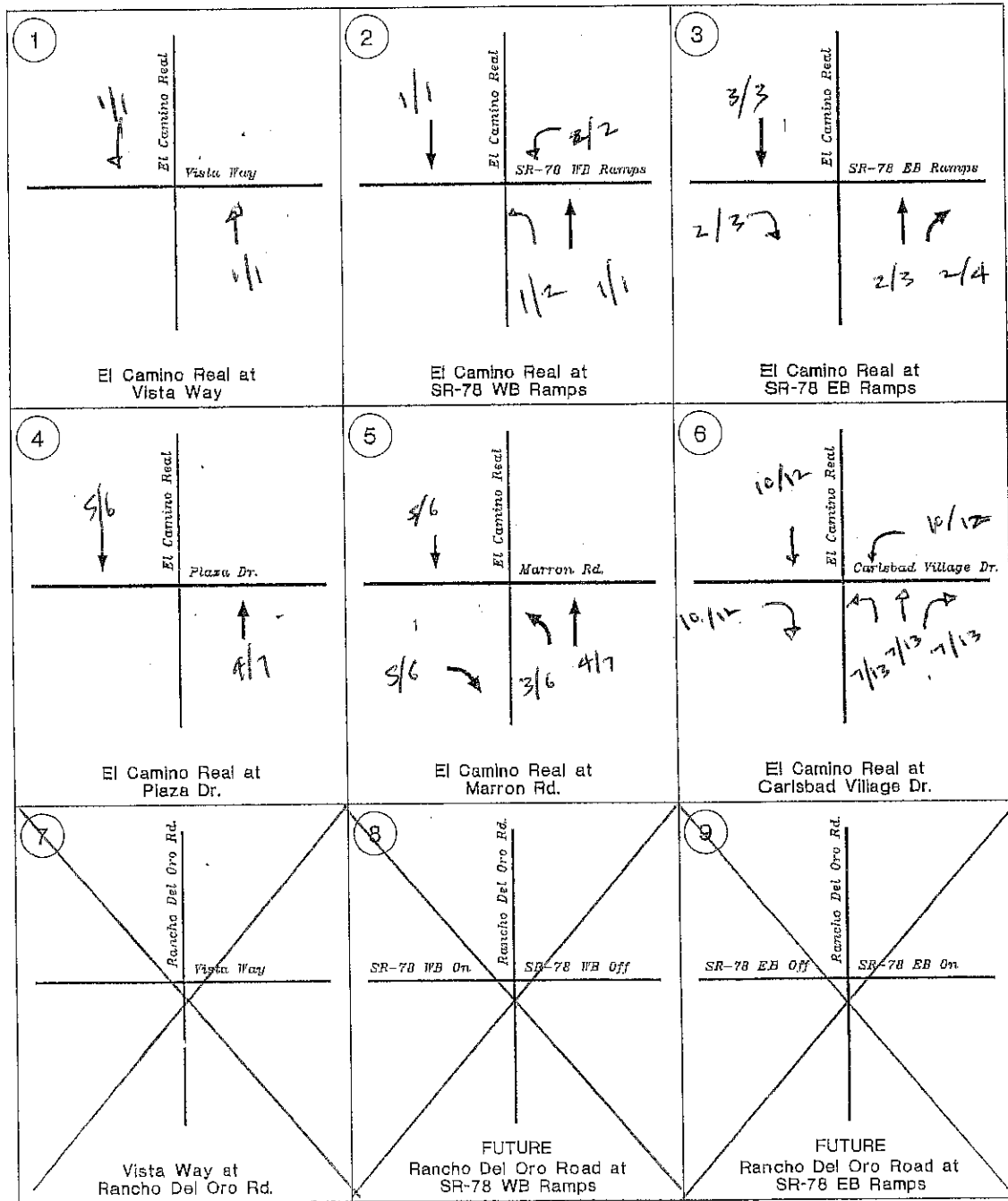
Figure 3-4
Project Only ADT Traffic Volumes



USE
THESE
PEAK
HOUR
VOLUMES

Figure 3-5
Project Only AM / PM Peak Hour Traffic Volumes

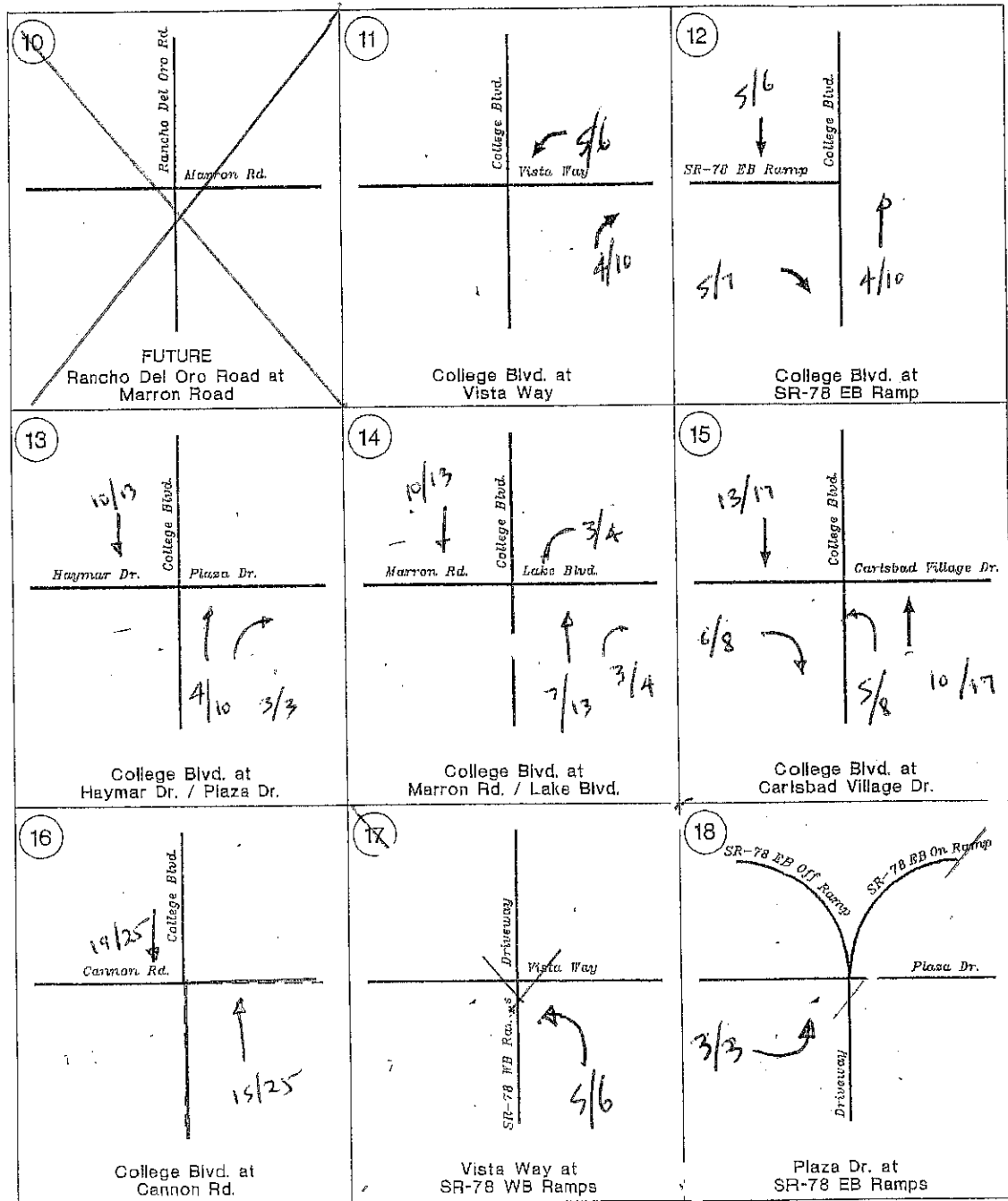
PALOMAR
314



AM/PM Peak Hour Volumes

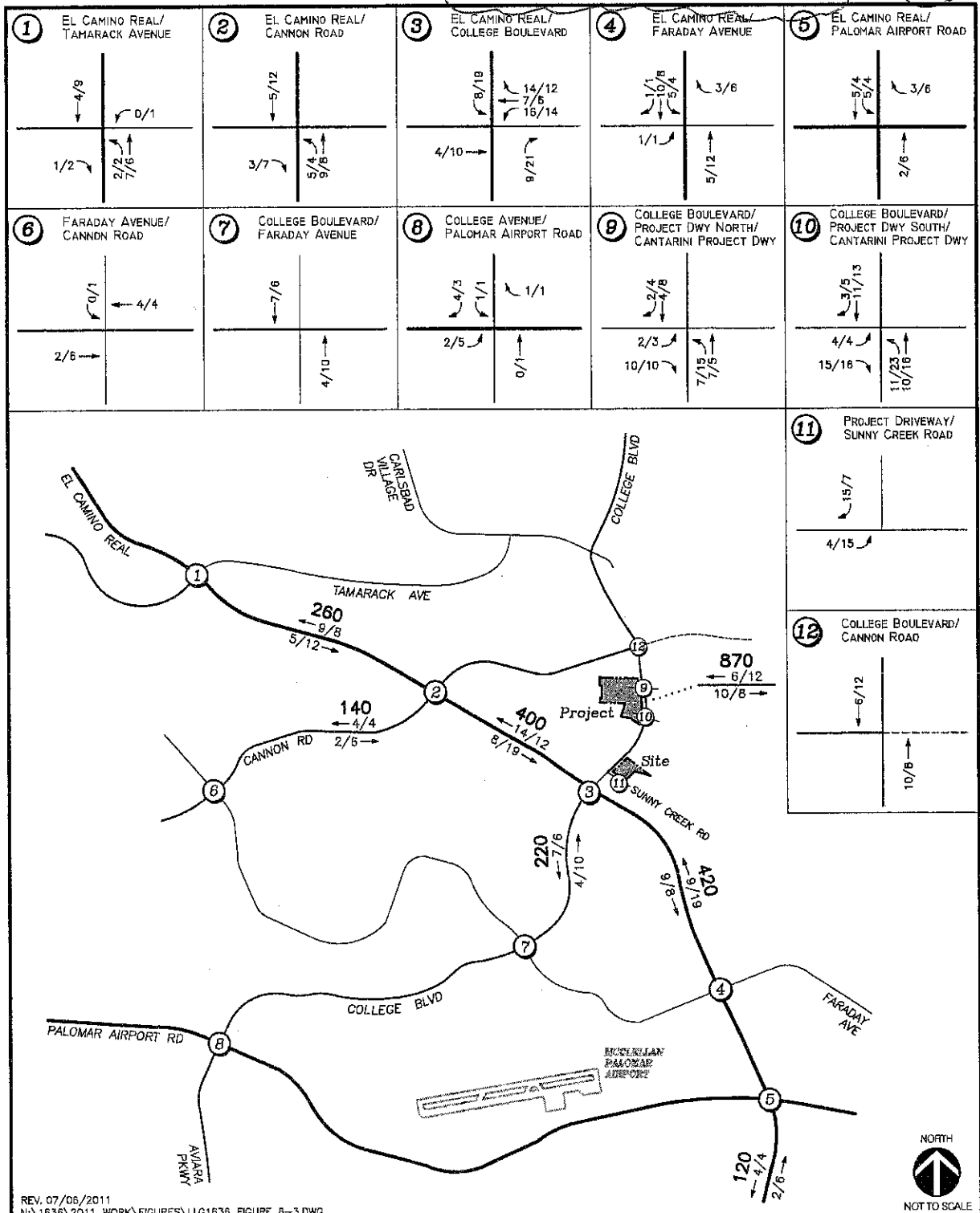


Palomar
4/4



AM/PM Peak Hour Volumes





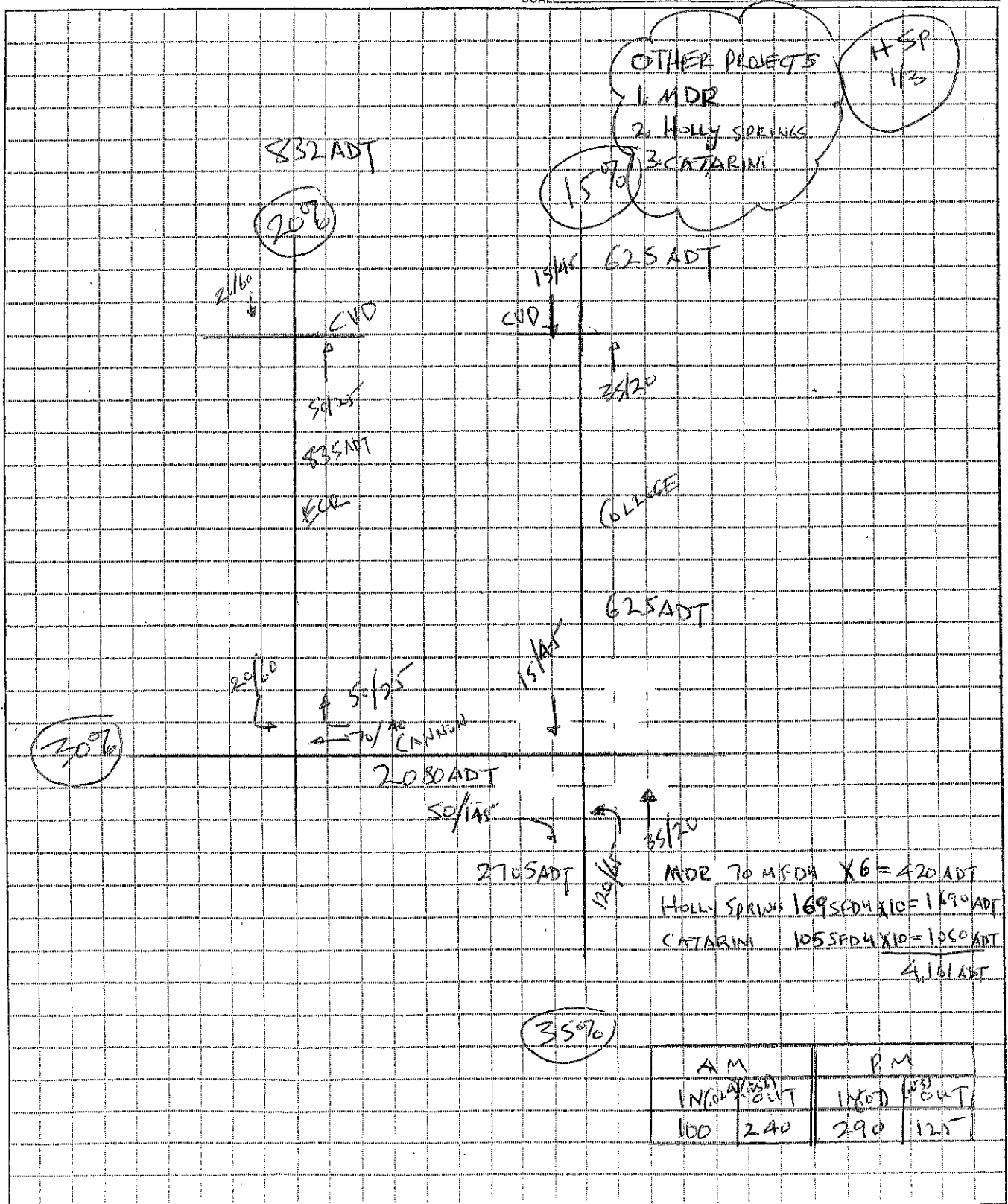
REV. 07/05/2011
N:\1636\2011 WORK\FIGURES\LLG1636 FIGURE 8-3.DWG

**LINSCOTT
LAW &
GREENSPAN**
engineers

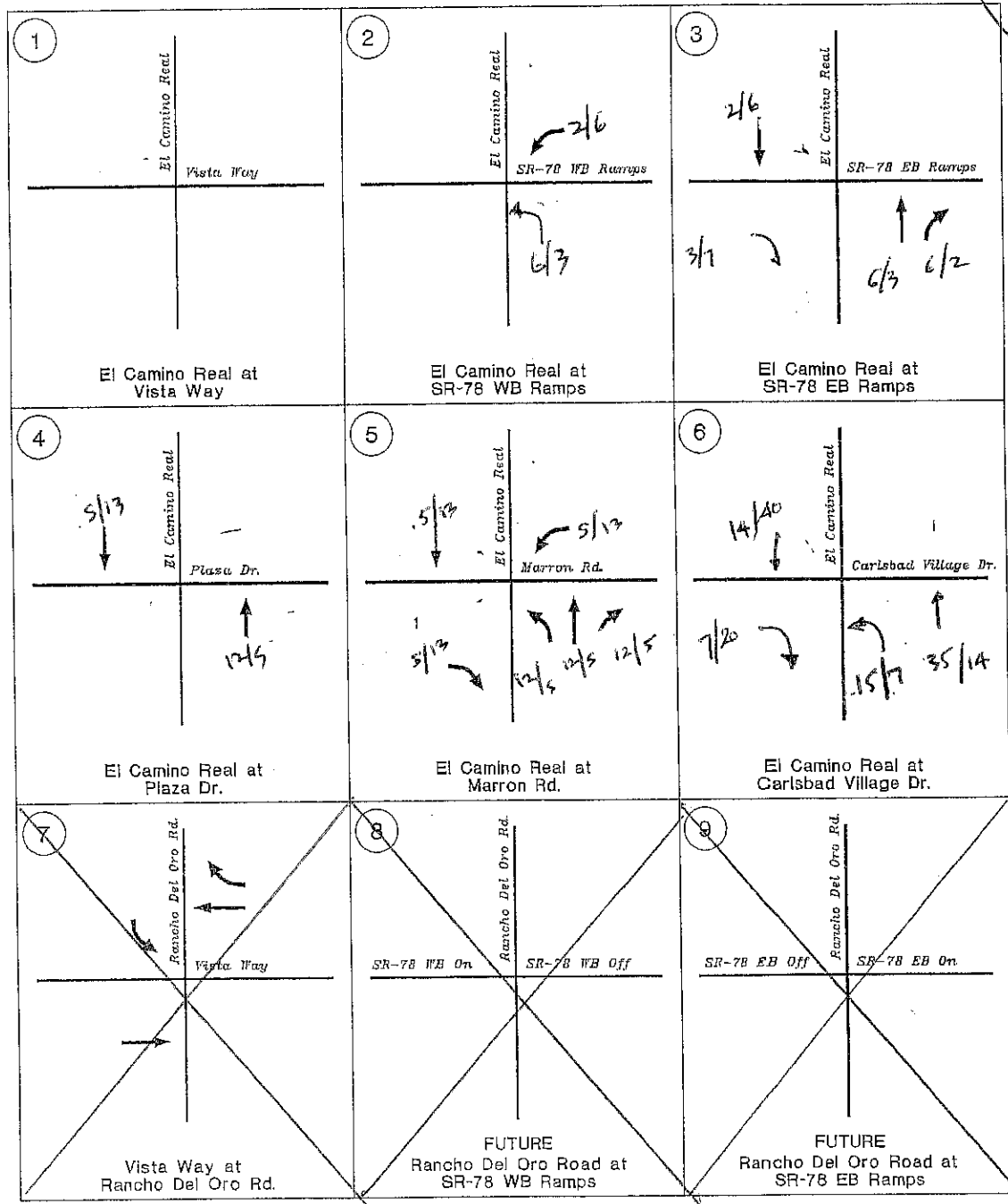
- NOTES:
- ADT (Average Daily Traffic) shown midblock
 - AM/PM peak hour volumes are shown at the intersections & midblock
 - Intersection names: North-South/East-West

Figure 8-3
Project Traffic Volumes
(Without Cannon Road Extension)

DOS COLINAS



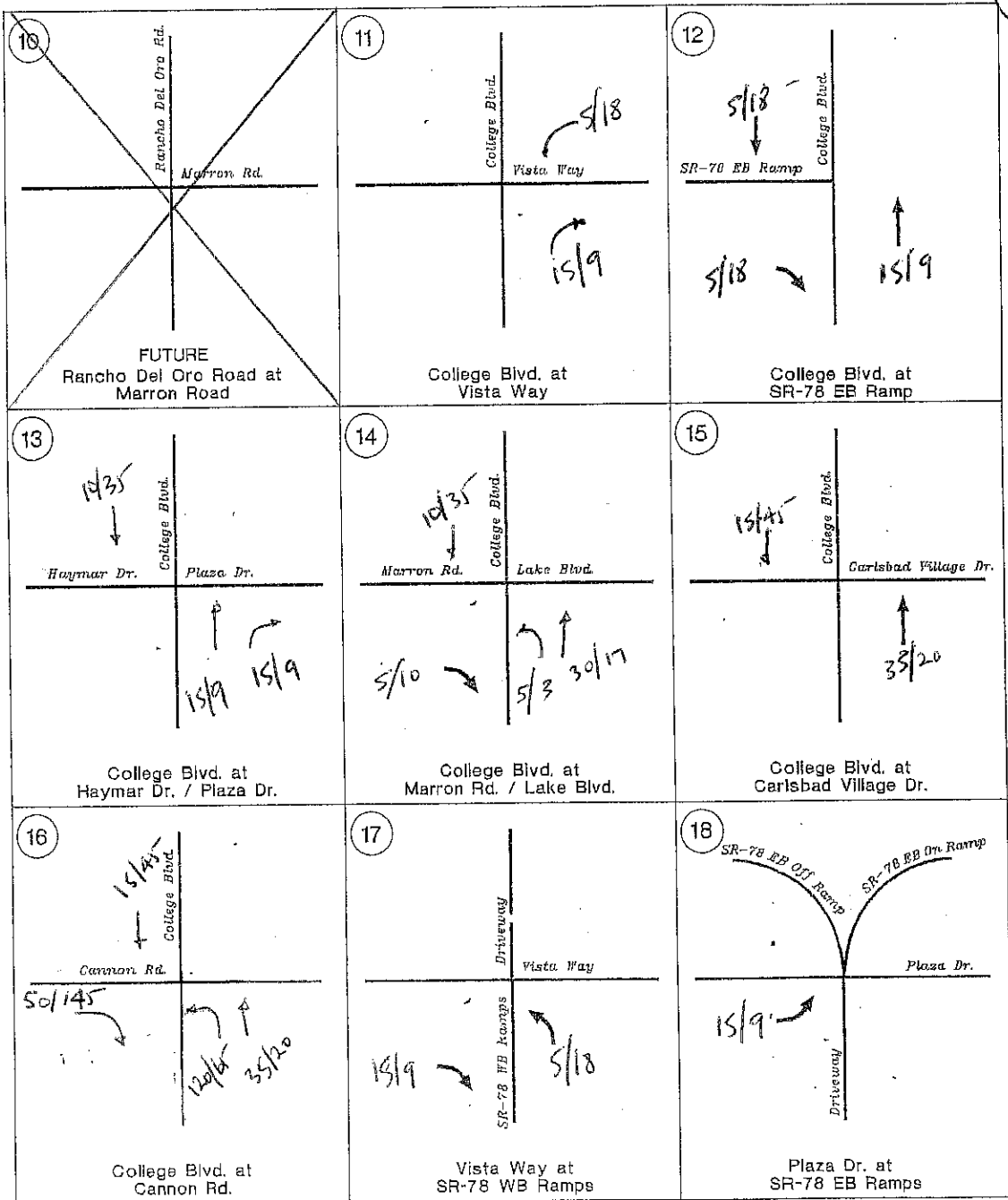
2/3
Holly
Springs



AM/PM Peak Hour Volumes



3/3 --
HOLLY SPRINGS



AM/PM Peak Hour Volumes



SHORT REPORT													
General Information							Site Information						
Analyst	USAI						Intersection						EL CAMINO REAL@ VISTA WAY
Agency or Co.	USAI						Area Type						All other areas
Date Performed	08/15/12						Jurisdiction						OCEANSIDE-INT.#1
Time Period	AM PEAK						Analysis Year						NEAR-TERM/NO PROJECT
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	1	2	1	2	2	0	2	3	0	2	3	0	
Lane group	L	T	R	L	TR		L	TR		L	TR		
Volume (vph)	23	45	75	407	108	70	109	866	286	82	1706	60	
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2	
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0		
Ext. eff. green	3.0	2.0	1.2	2.0	2.0		1.2	5.0		0.8	5.8		
Arrival type	3	3	3	3	3		5	5		5	5		
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0		
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5	10	0	
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0	0	0	0		0	0		0	0		
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0		
Phasing	Excl. Left	WB Only	Thru & RT	04			Excl. Left	Thru & RT	07			08	
Timing	G = 10.3	G = 13.5	G = 17.8	G =			G = 15.5	G = 48.6	G =			G =	
	Y = 5.2	Y = 5.6	Y = 5.6	Y =			Y = 5.2	Y = 6.3	Y =			Y =	
Duration of Analysis (hrs) = 0.25						Cycle Length C = 133.6							
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	25	49	82	442	193		118	1252		89	1919		
Lane group cap.	136	446	426	720	888		352	1840		342	1941		
v/c ratio	0.18	0.11	0.19	0.61	0.22		0.34	0.68		0.26	0.99		
Green ratio	0.08	0.13	0.28	0.21	0.27		0.10	0.38		0.10	0.38		
Unif. delay d1	57.7	51.8	36.8	47.9	37.9		55.7	34.7		55.6	40.8		
Delay factor k	0.11	0.11	0.11	0.20	0.11		0.11	0.25		0.11	0.49		
Increm. delay d2	0.7	0.1	0.2	1.6	0.1		0.6	1.0		0.4	17.7		
PF factor	1.000	1.000	1.000	1.000	1.000		0.924	0.594		0.926	0.583		
Control delay	58.4	51.9	37.0	49.5	38.1		52.0	21.7		51.9	41.5		
Lane group LOS	E	D	D	D	D		D	C		D	D		
Apprch. delay	45.1			46.0			24.3			42.0			
Approach LOS	D			D			C			D			
Intersec. delay	36.9			Intersection LOS						D			

SHORT REPORT													
General Information							Site Information						
Analyst	USAI						Intersection						EL CAMINO REAL@ VISTA WAY
Agency or Co.	USAI						Area Type						All other areas
Date Performed	08/15/12						Jurisdiction						OCEANSIDE-INT.#1
Time Period	PM PEAK						Analysis Year						NEAR-TERM/NO PROJECT
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	1	2	1	2	2	0	2	3	0	2	3	0	
Lane group	L	T	R	L	TR		L	TR		L	TR		
Volume (vph)	183	310	372	374	211	140	441	1821	537	168	1347	165	
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2	
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0		
Ext. eff. green	3.0	2.0	1.2	2.0	2.0		1.2	5.0		0.8	5.8		
Arrival type	3	3	3	3	3		5	5		5	5		
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0		
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5	10	0	
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0	0	0	0		0	0		0	0		
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0		
Phasing	Excl. Left	Thru & RT	03		04		Excl. Left	NB Only	Thru & RT	08			
Timing	G = 16.0	G = 22.3	G =		G =		G = 12.2	G = 12.8	G = 41.7	G =			
	Y = 5.2	Y = 5.6	Y =		Y =		Y = 5.2	Y = 6.3	Y = 6.3	Y =			
Duration of Analysis (hrs) = 0.25						Cycle Length C = 133.6							
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	199	337	404	407	381		479	2563		183	1643		
Lane group cap.	212	566	650	386	524		731	2293		257	1658		
v/c ratio	0.94	0.60	0.62	1.05	0.73		0.66	1.12		0.71	0.99		
Green ratio	0.12	0.16	0.42	0.11	0.16		0.21	0.47		0.07	0.33		
Unif. delay d1	58.3	52.1	30.3	59.3	53.4		48.1	35.4		60.4	44.3		
Delay factor k	0.45	0.18	0.20	0.50	0.29		0.23	0.50		0.28	0.49		
Increm. delay d2	44.8	1.7	1.8	60.8	5.0		2.1	59.6		8.9	19.9		
PF factor	1.000	1.000	1.000	1.000	1.000		0.820	0.409		0.946	0.667		
Control delay	103.1	53.9	32.1	120.1	58.4		41.6	74.1		66.1	49.5		
Lane group LOS	F	D	C	F	E		D	E		E	D		
Apprch. delay	55.0			90.3			69.0			51.1			
Approach LOS	D			F			E			D			
Intersec. delay	64.6			Intersection LOS						E			

MITIGATION: ADD NB RTD LANE

SHORT REPORT

General Information						Site Information					
Analyst	USAI					Intersection	EL CAMINO REAL@ VISTA WAY				
Agency or Co.	USAI					Area Type	All other areas				
Date Performed	08/15/12					Jurisdiction	OCEANSIDE-INT.#1/WITH MIT.				
Time Period	AM PEAK					Analysis Year	NEAR-TERM/NO PROJECT				

Volume and Timing Input

			EB			WB			NB			SB		
			LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes			1	2	1	2	2	0	2	3	1	2	3	0
Lane group			L	T	R	L	TR		L	T	R	L	TR	
Volume (vph)			23	45	75	407	108	70	109	866	286	82	1706	60
% Heavy veh			2	2	2	2	2	2	2	2	2	2	2	2
PHF			0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Actuated (P/A)			A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time			3.0	3.0	3.0	3.0	3.0		3.0	3.0	2.0	3.0	3.0	
Ext. eff. green			3.0	2.0	1.2	2.0	2.0		1.2	5.0	2.0	0.8	5.8	
Arrival type			3	3	3	3	3		5	5	5	5	5	
Unit Extension			3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume			5	10	0	5	10	0	5	10	0	5	10	0
Lane Width			12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking			N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr														
Bus stops/hr			0	0	0	0	0		0	0	0	0	0	
Unit Extension			3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Phasing	Excl. Left	WB Only	Thru & RT		04		Excl. Left	Thru & RT		07		08		
Timing	G = 10.3	G = 13.5	G = 17.8		G =		G = 15.5	G = 48.6		G =		G =		
	Y = 5.2	Y = 5.6	Y = 5.6		Y =		Y = 5.2	Y = 6.3		Y =		Y =		
Duration of Analysis (hrs) = 0.25									Cycle Length C = 133.6					

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	25	49	82	442	193		118	941	311	89	1919	
Lane group cap.	136	446	426	720	888		352	1922	563	342	1941	
v/c ratio	0.18	0.11	0.19	0.61	0.22		0.34	0.49	0.55	0.26	0.99	
Green ratio	0.08	0.13	0.28	0.21	0.27		0.10	0.38	0.36	0.10	0.38	
Unif. delay d1	57.7	51.8	36.8	47.9	37.9		55.7	31.7	33.8	55.6	40.8	
Delay factor k	0.11	0.11	0.11	0.20	0.11		0.11	0.11	0.15	0.11	0.49	
Increm. delay d2	0.7	0.1	0.2	1.6	0.1		0.6	0.2	1.2	0.4	17.7	
PF factor	1.000	1.000	1.000	1.000	1.000		0.924	0.594	0.619	0.926	0.583	
Control delay	58.4	51.9	37.0	49.5	38.1		52.0	19.0	22.1	51.9	41.5	
Lane group LOS	E	D	D	D	D		D	B	C	D	D	
Apprch. delay	45.1			46.0			22.5			42.0		
Approach LOS	D			D			C			D		
Intersec. delay	36.3			Intersection LOS						D		

WITH MITIGATION? ADD NB
120
LANE

SHORT REPORT												
General Information							Site Information					
Analyst USAI Agency or Co. USAI Date Performed 08/15/12 Time Period PM PEAK							Intersection EL CAMINO REAL@ VISTA WAY Area Type All other areas Jurisdiction OCEANSIDE-INT.#1/WITH MIT. Analysis Year NEAR-TERM/NO PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	2	1	2	2	0	2	3	1	2	3	0
Lane group	L	T	R	L	TR		L	T	R	L	TR	
Volume (vph)	183	310	372	374	211	140	441	1821	537	168	1347	165
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	3.0	3.0	3.0	3.0	3.0		3.0	3.0	2.0	3.0	3.0	
Ext. eff. green	3.0	2.0	1.2	2.0	2.0		1.2	5.0	2.0	0.8	5.8	
Arrival type	3	3	3	3	3		5	5	5	5	5	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5	10	0
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0		0	0	0	0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Phasing	Excl. Left	Thru & RT	03		04		Excl. Left	NB Only	Thru & RT	08		
Timing	G = 16.0	G = 22.3	G =		G =		G = 12.2	G = 12.8	G = 41.7	G =		
	Y = 5.2	Y = 5.6	Y =		Y =		Y = 5.2	Y = 6.3	Y = 6.3	Y =		
Duration of Analysis (hrs) = 0.25							Cycle Length C = 133.6					
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	199	337	404	407	381		479	1979	584	183	1643	
Lane group cap.	212	566	650	386	524		731	2385	706	257	1658	
v/c ratio	0.94	0.60	0.62	1.05	0.73		0.66	0.83	0.83	0.71	0.99	
Green ratio	0.12	0.16	0.42	0.11	0.16		0.21	0.47	0.46	0.07	0.33	
Unif. delay d1	58.3	52.1	30.3	59.3	53.4		48.1	30.8	31.8	60.4	44.3	
Delay factor k	0.45	0.18	0.20	0.50	0.29		0.23	0.37	0.37	0.28	0.49	
Increm. delay d2	44.8	1.7	1.8	60.8	5.0		2.1	2.6	8.1	8.9	19.9	
PF factor	1.000	1.000	1.000	1.000	1.000		0.820	0.409	0.443	0.946	0.667	
Control delay	103.1	53.9	32.1	120.1	58.4		41.6	15.2	22.2	66.1	49.5	
Lane group LOS	F	D	C	F	E		D	B	C	E	D	
Apprch. delay	55.0			90.3			20.7			51.1		
Approach LOS	D			F			C			D		
Intersec. delay	42.3			Intersection LOS						D		

SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection EL CAMINO REAL@ SR-78WB RAMPS						
Agency or Co.	USAI					Area Type All other areas						
Date Performed	08/22/12					Jurisdiction OCEANSIDE-INT.#2						
Time Period	AM PEAK					Analysis Year NEAR-TERM NO PROJECT						
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	0	0	1	1	1	2	3	0	0	3	1
Lane group				L	LTR	R	L	T			T	R
Volume (vph)				379	5	405	157	812			1726	458
% Heavy veh				2	2	2	2	2			2	2
PHF				0.92	0.92	0.92	0.92	0.92			0.92	0.92
Actuated (P/A)				A	A	A	A	A			A	A
Startup lost time				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Ext. eff. green				2.0	2.0	2.0	2.0	2.0			2.0	2.0
Arrival type				3	3	3	5	5			5	5
Unit Extension				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Ped/Bike/RTOR Volume	10			10		75				10	5	250
Lane Width				12.0	12.0	12.0	12.0	12.0			12.0	12.0
Parking/Grade/Parking	N		N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr				0	0	0	0	0			0	0
Unit Extension				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Phasing	WB Only	02	03	04	NB Only	Thru & RT	07	08				
Timing	G = 31.0	G =	G =	G =	G = 13.7	G = 39.0	G =	G =				
	Y = 5.1	Y =	Y =	Y =	Y = 4.2	Y = 7	Y =	Y =				
Duration of Analysis (hrs) = 0.25				Cycle Length C = 100.0								
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate				288	237	251	171	883			1876	226
Lane group cap.				531	508	475	436	2836			1928	588
v/c ratio				0.54	0.47	0.53	0.39	0.31			0.97	0.38
Green ratio				0.30	0.30	0.30	0.13	0.56			0.38	0.38
Unif. delay d1				29.3	28.5	29.1	40.1	11.8			30.5	22.5
Delay factor k				0.14	0.11	0.13	0.11	0.11			0.48	0.11
Increm. delay d2				1.1	0.7	1.1	0.6	0.1			14.6	0.4
PF factor				1.000	1.000	1.000	0.903	0.155			0.591	0.591
Control delay				30.4	29.2	30.2	36.8	1.9			32.7	13.7
Lane group LOS				C	C	C	D	A			C	B
Apprch. delay				30.0			7.6			30.6		
Approach LOS				C			A			C		
Intersec. delay	24.3			Intersection LOS						C		

SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection EL CAMINO REAL@ SR-78WB RAMPS						
Agency or Co.	USAI					Area Type All other areas						
Date Performed	08/22/12					Jurisdiction OCEANSIDE-INT.#2						
Time Period	PM PEAK					Analysis Year NEAR-TERM NO PROJECT						
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	0	0	1	1	1	2	3	0	0	3	1
Lane group				L	LTR	R	L	T			T	R
Volume (vph)				517	10	735	247	2026			1557	505
% Heavy veh				2	2	2	2	2			2	2
PHF				0.92	0.92	0.92	0.92	0.92			0.92	0.92
Actuated (P/A)				A	A	A	A	A			A	A
Startup lost time				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Ext. eff. green				2.0	2.0	2.0	2.0	2.0			2.0	2.0
Arrival type				3	3	3	5	5			5	5
Unit Extension				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Ped/Bike/RTOR Volume	10			10		0				10	5	0
Lane Width				12.0	12.0	12.0	12.0	12.0			12.0	12.0
Parking/Grade/Parking	N		N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr				0	0	0	0	0			0	0
Unit Extension				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Phasing	WB Only		02	03		04	NB Only		Thru & RT	07	08	
Timing	G = 31.0		G =	G =		G =	G = 13.7		G = 39.0	G =	G =	
	Y = 5.1		Y =	Y =		Y =	Y = 4.2		Y = 7	Y =	Y =	
Duration of Analysis (hrs) = 0.25				Cycle Length C = 100.0								
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate				416	397	559	268	2202			1692	549
Lane group cap.				531	499	475	436	2836			1928	588
v/c ratio				0.78	0.80	1.18	0.61	0.78			0.88	0.93
Green ratio				0.30	0.30	0.30	0.13	0.56			0.38	0.38
Unif. delay d1				32.0	32.2	35.0	41.3	17.2			28.8	29.8
Delay factor k				0.33	0.34	0.50	0.20	0.33			0.40	0.45
Increm. delay d2				7.5	8.7	99.7	2.6	1.4			5.0	22.2
PF factor				1.000	1.000	1.000	0.903	0.155			0.591	0.591
Control delay				39.6	40.9	134.7	39.9	4.1			22.0	39.8
Lane group LOS				D	D	F	D	A			C	D
Apprch. delay				78.7			8.0			26.4		
Approach LOS				E			A			C		
Intersec. delay	30.7			Intersection LOS						C		

SHORT REPORT													
General Information						Site Information							
Analyst	USAI					Intersection	EL CAMINO REAL@ SR-78EB RAMPS						
Agency or Co.	USAI					Area Type	All other areas						
Date Performed	08/22/12					Jurisdiction	OCEANSIDE-INT#3						
Time Period	AM PEAK					Analysis Year	NEAR-TERM NO PROJECT						
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	2	0	1	0	0	0	0	3	1	2	3	0	
Lane group	L		R					T	R	L	T		
Volume (vph)	356		190					668	352	510	1560		
% Heavy veh	2		2					2	2	2	2		
PHF	0.92		0.92					0.92	0.92	0.92	0.92		
Actuated (P/A)	A		A					A	A	A	A		
Startup lost time	3.0		3.0					3.0	3.0	3.0	3.0		
Ext. eff. green	2.0		2.0					2.0	2.0	2.0	2.0		
Arrival type	3		3					5	5	5	5		
Unit Extension	3.0		3.0					3.0	3.0	3.0	3.0		
Ped/Bike/RTOR Volume	5		0	5			5	10	0				
Lane Width	12.0		12.0					12.0	12.0	12.0	12.0		
Parking/Grade/Parking	N	0	N	N		N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0		0					0	0	0	0		
Unit Extension	3.0		3.0					3.0	3.0	3.0	3.0		
Phasing	EB Only	02	03	04	SB Only	Thru & RT	07	08					
Timing	G = 20.0	G =	G =	G =	G = 38.0	G = 50.2	G =	G =					
	Y = 5.1	Y =	Y =	Y =	Y = 4.7	Y = 7	Y =	Y =					
Duration of Analysis (hrs) = 0.25						Cycle Length C = 125.0							
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	387		207				726	383	554	1696			
Lane group cap.	522		241				1997	610	1017	3730			
v/c ratio	0.74		0.86				0.36	0.63	0.54	0.45			
Green ratio	0.15		0.15				0.39	0.39	0.30	0.74			
Unif. delay d1	50.7		51.7				26.8	30.5	36.9	6.6			
Delay factor k	0.30		0.39				0.11	0.21	0.14	0.11			
Increm. delay d2	5.6		25.3				0.1	2.1	0.6	0.1			
PF factor	1.000		1.000				0.567	0.567	0.720	0.189			
Control delay	56.3		77.0				15.3	19.4	27.2	1.3			
Lane group LOS	E		E				B	B	C	A			
Apprch. delay	63.5						16.7			7.7			
Approach LOS	E						B			A			
Intersec. delay	18.6			Intersection LOS						B			

SHORT REPORT												
General Information						Site Information						
Analyst USAI						Intersection EL CAMINO REAL@ SR-						
Agency or Co. USAI						78EB RAMPS						
Date Performed 08/22/12						Area Type All other areas						
Time Period PM PEAK						Jurisdiction OCEANSIDE-INT#3						
						Analysis Year NEAR-TERM NO PROJECT						
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	0	1	0	0	0	0	3	1	2	3	0
Lane group	L		R					T	R	L	T	
Volume (vph)	647		354					1553	584	530	1547	
% Heavy veh	2		2					2	2	2	2	
PHF	0.92		0.92					0.92	0.92	0.92	0.92	
Actuated (P/A)	A		A					A	A	A	A	
Startup lost time	3.0		3.0					3.0	3.0	3.0	3.0	
Ext. eff. green	2.0		2.0					2.0	2.0	2.0	2.0	
Arrival type	3		3					5	5	5	5	
Unit Extension	3.0		3.0					3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	5		0	5			5	10	80			
Lane Width	12.0		12.0					12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N		N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0		0					0	0	0	0	
Unit Extension	3.0		3.0					3.0	3.0	3.0	3.0	
Phasing	EB Only	02	03	04	SB Only	Thru & RT	07	08				
Timing	G = 22.0	G =	G =	G =	G = 32.0	G = 54.2	G =	G =				
	Y = 5.1	Y =	Y =	Y =	Y = 4.7	Y = 7	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 125.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	703		385					1688	548	576	1682	
Lane group cap.	577		266					2159	660	852	3649	
v/c ratio	1.22		1.45					0.78	0.83	0.68	0.46	
Green ratio	0.17		0.17					0.43	0.43	0.25	0.72	
Unif. delay d1	52.0		52.0					30.9	31.9	42.5	7.4	
Delay factor k	0.50		0.50					0.33	0.37	0.25	0.11	
Increm. delay d2	113.4		221.2					1.9	8.8	2.1	0.1	
PF factor	1.000		1.000					0.506	0.506	0.780	0.178	
Control delay	165.4		273.2					17.6	24.9	35.3	1.4	
Lane group LOS	F		F					B	C	D	A	
Apprch. delay	203.5						19.4			10.0		
Approach LOS	F						B			B		
Intersec. delay	51.5			Intersection LOS						D		

SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	EL CAMINO REAL@ MARRON RD.					
Agency or Co.	USAI					Area Type	All other areas					
Date Performed	06/03/12					Jurisdiction	CARLSBAD					
Time Period	AM PEAK					Analysis Year	EXISTING PLUS OTHER PROJECTS					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	2	0	1	2	0	2	3	0	2	3	0
Lane group	L	TR		L	TR		L	TR		L	TR	
Volume (vph)	51	32	98	133	46	107	106	709	92	87	954	125
% Heavy veh	1	1	1	1	1	1	1	2	1	1	2	1
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Arrival type	4	4		4	4		5	5		5	5	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	5		0	5		0	5	5	0	5	5	0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0		0	0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08				
Timing	G = 12.0	G = 12.0	G =	G =	G = 14.0	G = 61.0	G =	G =				
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 6	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 120.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	54	137		140	161		112	843		92	1136	
Lane group cap.	179	318		179	321		405	2533		405	2533	
v/c ratio	0.30	0.43		0.78	0.50		0.28	0.33		0.23	0.45	
Green ratio	0.10	0.10		0.10	0.10		0.12	0.51		0.12	0.51	
Unif. delay d1	50.1	50.8		52.7	51.2		48.4	17.5		48.1	18.8	
Delay factor k	0.11	0.11		0.33	0.11		0.11	0.11		0.11	0.11	
Increm. delay d2	1.0	0.9		19.8	1.2		0.4	0.1		0.3	0.1	
PF factor	1.000	1.000		1.000	1.000		0.912	0.311		0.912	0.311	
Control delay	51.1	51.7		72.5	52.4		44.5	5.5		44.1	6.0	
Lane group LOS	D	D		E	D		D	A		D	A	
Apprch. delay	51.5			61.8			10.1			8.8		
Approach LOS	D			E			B			A		
Intersec. delay	18.3			Intersection LOS						B		

SHORT REPORT													
General Information							Site Information						
Analyst	USAI						Intersection	EL CAMINO REAL@					
Agency or Co.	USAI						Area Type	MARRON RD.					
Date Performed	06/03/12						Jurisdiction	All other areas					
Time Period	PM PEAK						Analysis Year	CARLSBAD					
							EXISTING PLUS OTHER PROJECTS						
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	1	2	0	1	2	0	2	3	0	2	3	0	
Lane group	L	TR		L	TR		L	TR		L	TR		
Volume (vph)	237	149	200	214	116	174	248	1171	137	241	827	191	
% Heavy veh	1	1	1	1	1	1	1	2	1	1	2	1	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0		
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0		
Arrival type	4	4		4	4		5	5		5	5		
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0		
Ped/Bike/RTOR Volume	5		0	5		0	5	5	0	5	5	0	
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0		0	0		0	0		0	0		
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0		
Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08					
Timing	G = 23.0	G = 25.0	G =	G =	G = 16.0	G = 50.0	G =	G =					
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 6	Y =	Y =					
Duration of Analysis (hrs) = 0.25							Cycle Length C = 135.0						
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	249	368		225	305		261	1377		254	1072		
Lane group cap.	304	606		304	604		411	1848		411	1823		
v/c ratio	0.82	0.61		0.74	0.50		0.64	0.75		0.62	0.59		
Green ratio	0.17	0.19		0.17	0.19		0.12	0.37		0.12	0.37		
Unif. delay d1	54.0	50.5		53.2	49.4		56.7	37.0		56.6	34.2		
Delay factor k	0.36	0.19		0.30	0.11		0.22	0.30		0.20	0.18		
Increm. delay d2	16.1	1.8		9.3	0.7		3.2	1.7		2.8	0.5		
PF factor	1.000	1.000		1.000	1.000		0.910	0.608		0.910	0.608		
Control delay	70.1	52.3		62.5	50.1		54.9	24.2		54.3	21.3		
Lane group LOS	E	D		E	D		D	C		D	C		
Apprch. delay	59.4			55.4			29.0			27.6			
Approach LOS	E			E			C			C			
Intersec. delay	36.5			Intersection LOS						D			

SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	EL CAMINO REAL@					
Agency or Co.	USAI					Area Type	CARLSBAD VILL.					
Date Performed	06/03/12					Jurisdiction	All other areas					
Time Period	AM PEAK					Analysis Year	CARLSBAD-INT.#6					
						EXISTING PLUS OTHER PROJECTS						
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	2	0	1	2	0	1	3	0	1	3	0
Lane group	L	TR		L	TR		L	TR		L	TR	
Volume (vph)	131	99	109	96	507	141	93	610	30	98	970	65
% Heavy veh	1	1	1	1	1	1	1	2	1	1	2	1
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Arrival type	4	4		4	4		5	5		5	5	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	5		0	5		0	5	5	0	5	5	0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0		0	0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08				
Timing	G = 17.0	G = 30.0	G =	G =	G = 14.0	G = 48.0	G =	G =				
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 6	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 130.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	138	219		101	682		98	674		103	1089	
Lane group cap.	234	762		234	800		192	1859		192	1855	
v/c ratio	0.59	0.29		0.43	0.85		0.51	0.36		0.54	0.59	
Green ratio	0.13	0.23		0.13	0.23		0.11	0.37		0.11	0.37	
Unif. delay d1	53.2	41.2		52.0	47.9		54.8	29.9		54.9	33.0	
Delay factor k	0.18	0.11		0.11	0.38		0.12	0.11		0.14	0.18	
Increm. delay d2	3.9	0.2		1.3	8.8		2.3	0.1		3.0	0.5	
PF factor	1.000	1.000		1.000	1.000		0.920	0.610		0.920	0.610	
Control delay	57.1	41.4		53.3	56.7		52.6	18.3		53.5	20.6	
Lane group LOS	E	D		D	E		D	B		D	C	
Apprch. delay	47.5			56.3			22.7			23.5		
Approach LOS	D			E			C			C		
Intersec. delay	34.3			Intersection LOS						C		

SHORT REPORT													
General Information							Site Information						
Analyst	USAI						Intersection	EL CAMINO REAL@					
Agency or Co.	USAI						Area Type	CARLSBAD VILL.					
Date Performed	06/03/12						Jurisdiction	All other areas					
Time Period	PM PEAK						Analysis Year	CARLSBAD-INT.#6					
							EXISTING PLUS OTHER PROJECTS						
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	1	2	0	1	2	0	1	3	0	1	3	0	
Lane group	L	TR		L	TR		L	TR		L	TR		
Volume (vph)	165	257	130	55	202	155	153	1279	78	200	879	136	
% Heavy veh	1	1	1	1	1	1	1	2	1	1	2	1	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0		
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0		
Arrival type	4	4		4	4		5	5		5	5		
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0		
Ped/Bike/RTOR Volume	5		0	5		0	5	5	0	5	5	0	
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0		0	0		0	0		0	0		
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0		
Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08					
Timing	G = 17.0	G = 18.0	G =	G =	G = 20.0	G = 54.0	G =	G =					
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 6	Y =	Y =					
Duration of Analysis (hrs) = 0.25							Cycle Length C = 130.0						
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	174	408		58	376		161	1428		211	1068		
Lane group cap.	234	471		234	464		275	2089		275	2063		
v/c ratio	0.74	0.87		0.25	0.81		0.59	0.68		0.77	0.52		
Green ratio	0.13	0.14		0.13	0.14		0.15	0.42		0.15	0.42		
Unif. delay d1	54.4	54.8		50.8	54.3		51.1	31.0		52.8	28.3		
Delay factor k	0.30	0.40		0.11	0.35		0.18	0.25		0.32	0.12		
Increm. delay d2	12.1	15.6		0.6	10.4		3.2	0.9		12.3	0.2		
PF factor	1.000	1.000		1.000	1.000		0.879	0.526		0.879	0.526		
Control delay	66.5	70.4		51.3	64.7		48.2	17.3		58.7	15.1		
Lane group LOS	E	E		D	E		D	B		E	B		
Apprch. delay	69.2			63.0			20.4			22.3			
Approach LOS	E			E			C			C			
Intersec. delay	33.1			Intersection LOS						C			

SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection VISTA WAY@RANCHO DEL ORO RD.						
Agency or Co.	USAI					Area Type All other areas						
Date Performed	06/03/12					Jurisdiction OCEANSIDE						
Time Period	AM PEAK					Analysis Year EXISTING PLUS OTHER PROJECTS						
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	2	0	1	2	0	1	1	0	1	1	1
Lane group	L	TR		L	TR		L	TR		L	TR	R
Volume (vph)	203	147	29	61	169	167	13	2	10	342	23	343
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	2.0
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	2.0
Arrival type	5	5		5	5		3	3		5	3	5
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5	10	0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0		0	0	0
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08				
Timing	G = 15.0	G = 20.0	G =	G =	G = 25.0	G = 20.0	G =	G =				
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 5	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 100.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	218	189		66	362		14	13		368	198	196
Lane group cap.	266	686		266	640		443	317		443	309	301
v/c ratio	0.82	0.28		0.25	0.57		0.03	0.04		0.83	0.64	0.65
Green ratio	0.15	0.20		0.15	0.20		0.25	0.20		0.25	0.20	0.20
Unif. delay d1	41.2	33.9		37.5	36.1		28.3	32.3		35.5	36.7	36.8
Delay factor k	0.36	0.11		0.11	0.16		0.11	0.11		0.37	0.22	0.23
Increm. delay d2	18.1	0.2		0.5	1.2		0.0	0.1		12.6	4.4	4.9
PF factor	0.882	0.833		0.882	0.833		1.000	1.000		0.778	1.000	0.833
Control delay	54.4	28.4		33.6	31.2		28.4	32.3		40.2	41.1	35.6
Lane group LOS	D	C		C	C		C	C		D	D	D
Apprch. delay	42.3			31.6			30.3			39.3		
Approach LOS	D			C			C			D		
Intersec. delay	37.9			Intersection LOS						D		

SHORT REPORT													
General Information							Site Information						
Analyst	USAI						Intersection						VISTA WAY@RANCHO DEL
Agency or Co.	USAI						Area Type						ORO RD.
Date Performed	06/03/12						Jurisdiction						All other areas
Time Period	PM PEAK						Analysis Year						OCEANSIDE
													EXISTING PLUS OTHER PROJECTS
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	1	2	0	1	2	0	1	1	0	1	1	1	
Lane group	L	TR		L	TR		L	TR		L	TR	R	
Volume (vph)	473	441	9	11	316	318	26	31	8	268	8	308	
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2	
PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	2.0	
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	2.0	
Arrival type	5	5		5	5		3	3		5	3	5	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0	
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5	10	0	
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0		0	0		0	0		0	0	0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0	
Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08					
Timing	G = 33.0	G = 25.0	G =	G =	G = 19.0	G = 16.0	G =	G =					
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 5	Y =	Y =					
Duration of Analysis (hrs) = 0.25							Cycle Length C = 113.0						
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	493	468		11	660		27	40		279	159	170	
Lane group cap.	517	782		517	708		298	254		298	213	210	
v/c ratio	0.95	0.60		0.02	0.93		0.09	0.16		0.94	0.75	0.81	
Green ratio	0.29	0.22		0.29	0.22		0.17	0.14		0.17	0.14	0.14	
Unif. delay d1	39.2	39.5		28.5	43.2		39.7	42.6		46.4	46.6	47.0	
Delay factor k	0.46	0.19		0.11	0.45		0.11	0.11		0.45	0.30	0.35	
Increm. delay d2	28.2	1.3		0.0	19.2		0.1	0.3		35.6	13.5	20.6	
PF factor	0.725	0.811		0.725	0.811		1.000	1.000		0.865	1.000	0.890	
Control delay	56.7	33.3		20.7	54.2		39.8	42.9		75.8	60.0	62.5	
Lane group LOS	E	C		C	D		D	D		E	E	E	
Apprch. delay	45.3			53.6			41.6			67.9			
Approach LOS	D			D			D			E			
Intersec. delay	53.6			Intersection LOS						D			

SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	COLLEGE BLVD.@ VISTA WAY					
Agency or Co.	USAI					Area Type	All other areas					
Date Performed	08/28/12					Jurisdiction	OCEANSIDE					
Time Period	AM PEAK					Analysis Year	EXISTING PLUS OTHER PROJECTS					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	2	1	2	2	0	1	3	1	2	3	0
Lane group	L	T	R	L	TR		L	T	R	L	TR	
Volume (vph)	44	146	409	510	166	238	157	623	774	68	1432	35
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Ext. eff. green	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Arrival type	5	5	5	5	5		5	5	5	5	5	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5	10	0
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0		0	0	0	0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Phasing	Excl. Left	WB Only	Thru & RT	04		Excl. Left	Thru & RT	07		08		
Timing	G = 4.0	G = 8.0	G = 7.0	G =		G = 9.5	G = 42.0	G =		G =		
	Y = 5.6	Y = 5.6	Y = 6.4	Y =		Y = 5.6	Y = 6.3	Y =		Y =		
Duration of Analysis (hrs) = 0.25						Cycle Length C = 100.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	46	154	431	537	426		165	656	815	72	1544	
Lane group cap.	137	248	347	605	654		168	2131	812	327	2122	
v/c ratio	0.34	0.62	1.24	0.89	0.65		0.98	0.31	1.00	0.22	0.73	
Green ratio	0.04	0.07	0.23	0.18	0.21		0.09	0.42	0.52	0.09	0.42	
Unif. delay d1	46.7	45.2	38.5	40.2	36.4		45.2	19.3	23.9	41.8	24.2	
Delay factor k	0.11	0.20	0.50	0.41	0.23		0.49	0.11	0.50	0.11	0.29	
Increm. delay d2	1.5	4.7	131.1	15.0	2.3		63.9	0.1	32.5	0.3	1.3	
PF factor	0.972	0.950	0.802	0.858	0.827		0.930	0.517	0.269	0.930	0.517	
Control delay	46.9	47.7	162.0	49.5	32.4		106.0	10.1	38.9	39.2	13.8	
Lane group LOS	D	D	F	D	C		F	B	D	D	B	
Apprch. delay	125.7			41.9			34.1			15.0		
Approach LOS	F			D			C			B		
Intersec. delay	41.2			Intersection LOS						D		

SHORT REPORT												
General Information							Site Information					
Analyst	USA/						COLLEGE BLVD.@ VISTA					
Agency or Co.	USA/						WAY					
Date Performed	08/28/12						Area Type					
Time Period	PM PEAK						All other areas					
							Jurisdiction					
							OCEANSIDE/					
							EXISTING + OTHER NO					
							PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	2	1	2	2	0	1	3	1	2	3	0
Lane group	L	T	R	L	TR		L	T	R	L	TR	
Volume (vph)	118	234	404	703	409	395	305	1216	741	151	1205	92
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Ext. eff. green	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Arrival type	5	5	5	5	5		5	5	5	5	5	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5	10	0
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0		0	0	0	0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Phasing	Excl. Left	WB Only	Thru & RT	04			Excl. Left	NB Only	Thru & RT	08		
Timing	G = 6.0	G = 16.0	G = 10.0	G =	G = 7.0			G = 5.0	G = 31.1	G =		
	Y = 5.6	Y = 5.6	Y = 6.3	Y =	Y = 5.6			Y = 5.6	Y = 6.2	Y =		
Duration of Analysis (hrs) = 0.25							Cycle Length C = 110.0					
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	124	246	425	740	847		321	1280	780	159	1365	
Lane group cap.	187	322	471	862	932		283	1924	1066	219	1417	
v/c ratio	0.66	0.76	0.90	0.86	0.91		1.13	0.67	0.73	0.73	0.96	
Green ratio	0.05	0.09	0.31	0.25	0.29		0.16	0.38	0.69	0.06	0.28	
Unif. delay d1	51.0	48.8	36.5	39.3	37.8		46.2	28.4	10.9	50.6	38.9	
Delay factor k	0.24	0.32	0.42	0.39	0.43		0.50	0.24	0.29	0.29	0.47	
Increm. delay d2	8.5	10.4	20.4	8.7	12.6		94.7	0.9	2.6	11.4	16.0	
PF factor	0.962	0.933	0.703	0.777	0.731		0.873	0.593	0.159	0.955	0.737	
Control delay	57.6	56.0	46.1	39.2	40.3		135.0	17.7	4.4	59.7	44.6	
Lane group LOS	E	E	D	D	D		F	B	A	E	D	
Apprch. delay	50.9			39.8			29.1			46.2		
Approach LOS	D			D			C			D		
Intersec. delay	38.7			Intersection LOS						D		

W/MT.

SHORT REPORT												
General Information							Site Information					
Analyst	USAI						Intersection COLLEGE BLVD.@ VISTA WAY					
Agency or Co.	USAI						Area Type All other areas					
Date Performed	08/28/12						Jurisdiction OCEANSIDE/MITIGATION					
Time Period	AM PEAK						Analysis Year EXISTING PLUS OTHER PROJECTS					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	2	1	2	2	1	1	3	2	2	3	0
Lane group	L	T	R	L	T	R	L	T	R	L	TR	
Volume (vph)	44	146	409	510	166	238	157	623	774	68	1432	35
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Arrival type	5	5	5	5	5	5	5	5	5	5	5	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5	10	0
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0	0	0	0	0	0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Phasing	Excl. Left	WB Only	Thru & RT	04			Excl. Left	Thru & RT	07			08
Timing	G = 4.0	G = 8.0	G = 7.0	G =			G = 9.5	G = 42.0	G =			G =
	Y = 5.6	Y = 5.6	Y = 6.4	Y =			Y = 5.6	Y = 6.3	Y =			Y =
Duration of Analysis (hrs) = 0.25							Cycle Length C = 100.0					
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	46	154	431	537	175	251	165	656	815	72	1544	
Lane group cap.	137	248	347	605	731	316	168	2131	1418	327	2122	
v/c ratio	0.34	0.62	1.24	0.89	0.24	0.79	0.98	0.31	0.57	0.22	0.73	
Green ratio	0.04	0.07	0.23	0.18	0.21	0.21	0.09	0.42	0.52	0.09	0.42	
Unif. delay d1	46.7	45.2	38.5	40.2	33.2	37.7	45.2	19.3	16.3	41.8	24.2	
Delay factor k	0.11	0.20	0.50	0.41	0.11	0.34	0.49	0.11	0.17	0.11	0.29	
Increm. delay d2	1.5	4.7	131.1	15.0	0.2	13.1	63.9	0.1	0.6	0.3	1.3	
PF factor	0.972	0.950	0.802	0.858	0.827	0.827	0.930	0.517	0.269	0.930	0.517	
Control delay	46.9	47.7	162.0	49.5	27.6	44.3	106.0	10.1	5.0	39.2	13.8	
Lane group LOS	D	D	F	D	C	D	F	B	A	D	B	
Apprch. delay	125.7			44.1			17.2			15.0		
Approach LOS	F			D			B			B		
Intersec. delay	35.9			Intersection LOS						D		

WITH/MIT

SHORT REPORT												
General Information							Site Information					
Analyst	USAI						Intersection COLLEGE BLVD.@ VISTA WAY					
Agency or Co.	USAI						Area Type All other areas					
Date Performed	08/28/12						Jurisdiction OCEANSIDE/MITIGATION					
Time Period	PM PEAK						Analysis Year EXISTING + OTHER NO PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	2	1	2	2	1	1	3	2	2	3	0
Lane group	L	T	R	L	T	R	L	T	R	L	TR	
Volume (vph)	118	234	404	703	409	395	305	1216	741	151	1205	92
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Arrival type	5	5	5	5	5	5	5	5	5	5	5	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5	10	0
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0	0	0	0	0	0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Phasing	Excl. Left	WB Only	Thru & RT	04			Excl. Left	NB Only	Thru & RT	08		
Timing	G = 6.0	G = 16.0	G = 10.0	G =			G = 7.0	G = 5.0	G = 31.1	G =		
	Y = 5.6	Y = 5.6	Y = 6.3	Y =			Y = 5.6	Y = 5.6	Y = 6.2	Y =		
Duration of Analysis (hrs) = 0.25						Cycle Length C = 110.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	124	246	425	740	431	416	321	1280	780	159	1365	
Lane group cap.	187	322	471	862	1019	444	283	1924	1862	219	1417	
v/c ratio	0.66	0.76	0.90	0.86	0.42	0.94	1.13	0.67	0.42	0.73	0.96	
Green ratio	0.05	0.09	0.31	0.25	0.29	0.29	0.16	0.38	0.69	0.06	0.28	
Unif. delay d1	51.0	48.8	36.5	39.3	31.8	38.2	46.2	28.4	7.6	50.6	38.9	
Delay factor k	0.24	0.32	0.42	0.39	0.11	0.45	0.50	0.24	0.11	0.29	0.47	
Increm. delay d2	8.5	10.4	20.4	8.7	0.3	27.6	94.7	0.9	0.2	11.4	16.0	
PF factor	0.962	0.933	0.703	0.777	0.731	0.731	0.873	0.593	0.159	0.955	0.737	
Control delay	57.6	56.0	46.1	39.2	23.5	55.5	135.0	17.7	1.4	59.7	44.6	
Lane group LOS	E	E	D	D	C	E	F	B	A	E	D	
Apprch. delay	50.9			39.2			28.2			46.2		
Approach LOS	D			D			C			D		
Intersec. delay	38.2			Intersection LOS						D		

SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	COLLEGE BLVD.@ SR-78EB OFF-RAM					
Agency or Co.	USAI					Area Type	All other areas					
Date Performed	08/28/12					Jurisdiction	OCEANSIDE					
Time Period	AM PEAK					Analysis Year	EXISTING PLUS OTHER PROJECTS					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	0	1	0	0	0	0	4	0	0	5	0
Lane group	L		R					T			T	
Volume (vph)	549		247					1005			1902	
% Heavy veh	2		2					2			2	
PHF	0.95		0.95					0.95			0.95	
Actuated (P/A)	A		A					A			A	
Startup lost time	3.0		3.0					3.0			3.0	
Ext. eff. green	2.0		2.0					2.0			2.0	
Arrival type	3		3					5			5	
Unit Extension	3.0		3.0					3.0			3.0	
Ped/Bike/RTOR Volume	5		0	5								
Lane Width	12.0		12.0					12.0			12.0	
Parking/Grade/Parking	N	0	N	N		N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0		0					0			0	
Unit Extension	3.0		3.0					3.0			3.0	
Phasing	EB Only	02	03	04	Thru Only	06	07	08				
Timing	G = 26.0	G =	G =	G =	G = 62.7	G =	G =	G =				
	Y = 5	Y =	Y =	Y =	Y = 6.3	Y =	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 100.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	578		260					1058			2002	
Lane group cap.	859		396					4174			5218	
v/c ratio	0.67		0.66					0.25			0.38	
Green ratio	0.25		0.25					0.62			0.62	
Unif. delay d1	33.8		33.6					8.7			9.6	
Delay factor k	0.24		0.23					0.11			0.11	
Increment. delay d2	2.1		3.9					0.0			0.0	
PF factor	1.000		1.000					0.131			0.131	
Control delay	35.9		37.6					1.2			1.3	
Lane group LOS	D		D					A			A	
Approch. delay	36.4						1.2			1.3		
Approach LOS	D						A			A		
Intersec. delay	8.8			Intersection LOS						A		

SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	COLLEGE BLVD.@ SR-78EB OFF-RAM					
Agency or Co.	USAI					Area Type	All other areas					
Date Performed	08/28/12					Jurisdiction	OCEANSIDE					
Time Period	PM PEAK					Analysis Year	EXISTING PLUS OTHER PROJECTS					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	0	1	0	0	0	0	4	0	0	5	0
Lane group	L		R					T			T	
Volume (vph)	497		464					1718			1893	
% Heavy veh	2		2					2			2	
PHF	0.95		0.95					0.95			0.95	
Actuated (P/A)	A		A					A			A	
Startup lost time	3.0		3.0					3.0			3.0	
Ext. eff. green	2.0		2.0					2.0			2.0	
Arrival type	3		3					5			5	
Unit Extension	3.0		3.0					3.0			3.0	
Ped/Bike/RTOR Volume	5		0	5								
Lane Width	12.0		12.0					12.0			12.0	
Parking/Grade/Parking	N	0	N	N		N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0		0					0			0	
Unit Extension	3.0		3.0					3.0			3.0	
Phasing	EB Only	02	03	04	Thru Only	06	07	08				
Timing	G = 36.0	G =	G =	G =	G = 63.2	G =	G =	G =				
	Y = 5.2	Y =	Y =	Y =	Y = 5.6	Y =	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 110.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	523		488					1808			1993	
Lane group cap.	1094		504					3825			4782	
v/c ratio	0.48		0.97					0.47			0.42	
Green ratio	0.32		0.32					0.57			0.57	
Unif. delay d1	30.2		37.0					14.2			13.6	
Delay factor k	0.11		0.48					0.11			0.11	
Increm. delay d2	0.3		32.0					0.1			0.1	
PF factor	1.000		1.000					0.132			0.132	
Control delay	30.5		68.9					2.0			1.9	
Lane group LOS	C		E					A			A	
Apprch. delay	49.0						2.0			1.9		
Approach LOS	D						A			A		
Intersec. delay	11.8			Intersection LOS						B		

SHORT REPORT												
General Information						Site Information						
Analyst USAI Agency or Co. USAI Date Performed 08/28/12 Time Period AM PEAK						Intersection COLLEGE BLVD.@ PLAZA DR. Area Type All other areas Jurisdiction OCEANSIDE Analysis Year EXISTING PLUS OTHER PROJECTS						
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	1	0	1	1	1	1	3	0	2	3	0
Lane group	L	TR		L	T	R	L	TR		L	TR	
Volume (vph)	11	12	14	101	14	228	35	772	336	762	1349	38
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Ext. eff. green	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Arrival type	4	4		4	4	4	5	5		5	5	
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5	10	0
Lane Width	12.0	12.0		12.0	12.0	12.0	12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0	0	0	0		0	0	
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Phasing	EB Only		WB Only		03		04		Excl. Left		SB Only	
Timing	G = 12.0		G = 8.0		G =		G =		G = 10.0		G = 19.0	
	Y = 4		Y = 4		Y =		Y =		Y = 4		Y = 4	
Duration of Analysis (hrs) = 0.25						Cycle Length C = 100.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	12	28		106	15	240	37	1167		802	1460	
Lane group cap.	195	184		124	130	672	159	1442		1100	2676	
v/c ratio	0.06	0.15		0.85	0.12	0.36	0.23	0.81		0.73	0.55	
Green ratio	0.11	0.11		0.07	0.07	0.44	0.09	0.30		0.32	0.53	
Unif. delay d1	39.9	40.3		46.0	43.6	18.6	42.3	32.4		30.2	15.5	
Delay factor k	0.11	0.11		0.39	0.11	0.11	0.11	0.35		0.29	0.15	
Increm. delay d2	0.1	0.4		40.7	0.4	0.3	0.8	3.6		2.5	0.2	
PF factor	1.000	1.000		1.000	1.000	0.849	0.934	0.714		0.686	0.248	
Control delay	40.0	40.7		86.7	44.0	16.1	40.3	26.7		23.2	4.1	
Lane group LOS	D	D		F	D	B	D	C		C	A	
Apprch. delay	40.5			38.0			27.1			10.9		
Approach LOS	D			D			C			B		
Intersec. delay	18.8			Intersection LOS						B		

SHORT REPORT												
General Information							Site Information					
Analyst	USAI						COLLEGE BLVD.@ PLAZA					
Agency or Co.	USAI						DR.					
Date Performed	08/28/12						Area Type					
Time Period	PM PEAK						All other areas					
							Jurisdiction					
							OCEANSIDE					
							Analysis Year					
							EXISTING + OTHER					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	1	0	1	1	1	1	3	0	2	3	0
Lane group	L	TR		L	T	R	L	TR		L	TR	
Volume (vph)	40	27	30	152	12	461	24	1217	185	779	1542	36
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Ext. eff. green	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Arrival type	4	4		4	4	4	5	5		5	5	
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	5	10	0	22	10	0	9	10	0	5	10	0
Lane Width	12.0	12.0		12.0	12.0	12.0	12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0	0	0	0		0	0	
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Phasing	EB Only	WB Only	03	04	Excl. Left	SB Only	Thru & RT	08				
Timing	G = 12.0	G = 15.0	G =	G =	G = 7.0	G = 12.0	G = 39.2	G =				
	Y = 4.2	Y = 5.6	Y =	Y =	Y = 4.2	Y = 5.2	Y = 5.6	Y =				
Duration of Analysis (hrs) = 0.25							Cycle Length C = 110.0					
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	42	60		160	13	485	25	1476		820	1661	
Lane group cap.	177	167		225	237	576	97	1721		694	2545	
v/c ratio	0.24	0.36		0.71	0.05	0.84	0.26	0.86		1.18	0.65	
Green ratio	0.10	0.10		0.13	0.13	0.39	0.05	0.35		0.20	0.50	
Unif. delay d1	45.6	46.2		46.1	42.2	30.5	49.9	33.4		43.9	20.2	
Delay factor k	0.11	0.11		0.27	0.11	0.38	0.11	0.39		0.50	0.23	
Increm. delay d2	0.7	1.3		10.0	0.1	10.9	1.4	4.6		96.1	0.6	
PF factor	1.000	1.000		1.000	1.000	0.906	0.962	0.645		0.831	0.324	
Control delay	46.3	47.5		56.1	42.3	38.5	49.4	26.1		132.6	7.1	
Lane group LOS	D	D		E	D	D	D	C		F	A	
Apprch. delay	47.0			42.9			26.5			48.6		
Approach LOS	D			D			C			D		
Intersec. delay	40.8			Intersection LOS						D		

W/MT

SHORT REPORT													
General Information						Site Information							
Analyst	USAI					Intersection	COLLEGE BLVD.@ PLAZA DR.						
Agency or Co.	USAI					Area Type	All other areas						
Date Performed	08/28/12					Jurisdiction	OCEANSIDE/MITIGATION						
Time Period	AM PEAK					Analysis Year	EXISTING PLUS OTHER PROJECTS						
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	1	1	0	1	1	1	1	3	1	2	3	0	
Lane group	L	TR		L	T	R	L	T	R	L	TR		
Volume (vph)	11	12	14	101	14	228	35	772	336	762	1349	38	
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	3.0	3.0		3.0	3.0	3.0	3.0	3.0	2.0	3.0	3.0		
Ext. eff. green	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		
Arrival type	4	4		4	4	4	5	5	5	5	5		
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5	10	0	
Lane Width	12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0		0	0	0	0	0	0	0	0		
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		
Phasing	EB Only	WB Only	03	04	Excl. Left	SB Only	Thru & RT	08					
Timing	G = 12.0	G = 8.0	G =	G =	G = 10.0	G = 19.0	G = 31.0	G =					
	Y = 4	Y = 4	Y =	Y =	Y = 4	Y = 4	Y = 4	Y =					
Duration of Analysis (hrs) = 0.25						Cycle Length C = 100.0							
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	12	28		106	15	240	37	813	354	802	1460		
Lane group cap.	195	184		124	130	672	159	1522	479	1100	2676		
v/c ratio	0.06	0.15		0.85	0.12	0.36	0.23	0.53	0.74	0.73	0.55		
Green ratio	0.11	0.11		0.07	0.07	0.44	0.09	0.30	0.31	0.32	0.53		
Unif. delay d1	39.9	40.3		46.0	43.6	18.6	42.3	29.2	30.9	30.2	15.5		
Delay factor k	0.11	0.11		0.39	0.11	0.11	0.11	0.14	0.30	0.29	0.15		
Increm. delay d2	0.1	0.4		40.7	0.4	0.3	0.8	0.4	6.0	2.5	0.2		
PF factor	1.000	1.000		1.000	1.000	0.849	0.934	0.714	0.700	0.686	0.248		
Control delay	40.0	40.7		86.7	44.0	16.1	40.3	21.2	27.6	23.2	4.1		
Lane group LOS	D	D		F	D	B	D	C	C	C	A		
Apprch. delay	40.5			38.0			23.7			10.9			
Approach LOS	D			D			C			B			
Intersec. delay	17.7			Intersection LOS						B			

w/MT.

SHORT REPORT													
General Information						Site Information							
Analyst	USAI					Intersection	COLLEGE BLVD.@ PLAZA DR.						
Agency or Co.	USAI					Area Type	All other areas						
Date Performed	08/28/12					Jurisdiction	OCEANSIDE/MITIGATION						
Time Period	PM PEAK					Analysis Year	EXISTING + OTHER						
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	1	1	0	1	1	1	1	3	1	2	3	0	
Lane group	L	TR		L	T	R	L	T	R	L	TR		
Volume (vph)	40	27	30	152	12	461	24	1217	185	779	1542	36	
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	3.0	3.0		3.0	3.0	3.0	3.0	3.0	2.0	3.0	3.0		
Ext. eff. green	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		
Arrival type	4	4		4	4	4	5	5	5	5	5		
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		
Ped/Bike/RTOR Volume	5	10	0	22	10	0	9	10	0	5	10	0	
Lane Width	12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0		0	0	0	0	0	0	0	0		
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		
Phasing	EB Only	WB Only	03	04	Excl. Left	SB Only	Thru & RT	08					
Timing	G = 12.0	G = 15.0	G =	G =	G = 7.0	G = 12.0	G = 39.2	G =					
	Y = 4.2	Y = 5.6	Y =	Y =	Y = 4.2	Y = 5.2	Y = 5.6	Y =					
Duration of Analysis (hrs) = 0.25			Cycle Length C = 110.0										
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	42	60		160	13	485	25	1281	195	820	1661		
Lane group cap.	177	167		225	237	576	97	1762	550	694	2545		
v/c ratio	0.24	0.36		0.71	0.05	0.84	0.26	0.73	0.35	1.18	0.65		
Green ratio	0.10	0.10		0.13	0.13	0.39	0.05	0.35	0.36	0.20	0.50		
Unif. delay d1	45.6	46.2		46.1	42.2	30.5	49.9	31.3	26.1	43.9	20.2		
Delay factor k	0.11	0.11		0.27	0.11	0.38	0.11	0.29	0.11	0.50	0.23		
Increm. delay d2	0.7	1.3		10.0	0.1	10.9	1.4	1.5	0.4	96.1	0.6		
PF factor	1.000	1.000		1.000	1.000	0.906	0.962	0.645	0.631	0.831	0.324		
Control delay	46.3	47.5		56.1	42.3	38.5	49.4	21.8	16.8	132.6	7.1		
Lane group LOS	D	D		E	D	D	D	C	B	F	A		
Apprch. delay	47.0			42.9			21.6			48.6			
Approach LOS	D			D			C			D			
Intersec. delay	39.2			Intersection LOS							D		

SHORT REPORT													
General Information						Site Information							
Analyst	USAI					Intersection	COLLEGE BLVD.@ MARRON RD.						
Agency or Co.	USAI					Area Type	All other areas						
Date Performed	08/29/12					Jurisdiction	OCEANSIDE-INT.#14						
Time Period	AM PEAK					Analysis Year	NEAR-TERM/NO PROJECT						
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	2	1	1	1	1	1	2	2	1	2	2	0	
Lane group	L	T	R	L	T	R	L	T	R	L	T		
Volume (vph)	115	34	120	407	87	264	153	783	256	197	1001		
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2		
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92		
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		
Arrival type	4	4	4	4	4	5	5	5	5	5	5		
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		
Ped/Bike/RTOR Volume	5	5	0	5	5	0	5	5	0	5			
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0	0	0	0	0	0	0	0	0	0		
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		
Phasing	Excl. Left	WB Only	Thru & RT	04			Excl. Left	SB Only	Thru & RT	08			
Timing	G = 10.0	G = 10.0	G = 10.0	G =			G = 8.0	G = 6.0	G = 32.0	G =			
	Y = 4	Y = 4	Y = 4	Y =			Y = 4	Y = 4	Y = 4	Y =			
Duration of Analysis (hrs) = 0.25				Cycle Length C = 100.0									
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	125	37	130	442	95	287	166	851	278	214	1088		
Lane group cap.	344	186	337	425	447	558	275	1135	933	619	1490		
v/c ratio	0.36	0.20	0.39	1.04	0.21	0.51	0.60	0.75	0.30	0.35	0.73		
Green ratio	0.10	0.10	0.22	0.24	0.24	0.36	0.08	0.32	0.60	0.18	0.42		
Unif. delay d1	42.0	41.3	33.2	38.0	30.4	25.1	44.5	30.4	9.7	35.9	24.3		
Delay factor k	0.11	0.11	0.11	0.50	0.11	0.12	0.19	0.30	0.11	0.11	0.29		
Increm. delay d2	0.7	0.5	0.7	54.4	0.2	0.8	3.7	2.8	0.2	0.3	1.9		
PF factor	1.000	1.000	1.000	1.000	1.000	0.625	0.942	0.686	0.125	0.854	0.517		
Control delay	42.7	41.8	34.0	92.4	30.7	16.5	45.6	23.7	1.4	30.9	14.4		
Lane group LOS	D	D	C	F	C	B	D	C	A	C	B		
Apprch. delay	38.7			58.9			21.7			17.1			
Approach LOS	D			E			C			B			
Intersec. delay	29.7			Intersection LOS							C		

SHORT REPORT													
General Information							Site Information						
Analyst	USAI						Intersection	COLLEGE BLVD.@ MARRON RD.					
Agency or Co.	USAI						Area Type	All other areas					
Date Performed	08/30/12						Jurisdiction	OCEANSIDE-INT.#14/NO MITIGATION					
Time Period	PM PEAK						Analysis Year	NEAR-TERM NO PROJECT					
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	2	1	1	1	1	1	2	2	1	2	2	0	
Lane group	L	T	R	L	T	R	L	T	R	L	T		
Volume (vph)	470	229	244	180	145	167	222	952	445	327	812		
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2		
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92		
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		
Arrival type	5	5	5	5	5	5	5	5	5	5	5		
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	45	5			
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0	0	0	0	0	0	0	0	0	0		
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		
Phasing	Excl. Left	Thru & RT	03			04		Excl. Left	Thru & RT	07		08	
Timing	G = 17.0	G = 15.0	G =			G =		G = 13.5	G = 38.5	G =		G =	
	Y = 3	Y = 4.5	Y =			Y =		Y = 3	Y = 5	Y =		Y =	
Duration of Analysis (hrs) = 0.25							Cycle Length C = 99.5						
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	511	249	265	196	158	182	241	1035	435	355	883		
Lane group cap.	553	262	495	285	267	495	432	1364	584	432	1337		
v/c ratio	0.92	0.95	0.54	0.69	0.59	0.37	0.56	0.76	0.74	0.82	0.66		
Green ratio	0.16	0.14	0.32	0.16	0.14	0.32	0.13	0.38	0.38	0.13	0.38		
Unif. delay d1	41.2	42.4	27.7	39.4	40.1	26.0	40.9	27.1	26.9	42.4	25.7		
Delay factor k	0.44	0.46	0.14	0.26	0.18	0.11	0.16	0.31	0.30	0.36	0.24		
Increm. delay d2	21.4	42.1	1.1	6.8	3.5	0.5	1.6	2.5	5.2	12.1	1.2		
PF factor	0.872	0.891	0.684	0.872	0.891	0.684	0.904	0.597	0.597	0.904	0.597		
Control delay	57.3	79.9	20.1	41.2	39.2	18.2	38.6	18.7	21.2	50.4	16.6		
Lane group LOS	E	E	C	D	D	B	D	B	C	D	B		
Approch. delay	53.2			32.8			22.1			26.3			
Approach LOS	D			C			C			C			
Intersec. delay	31.6			Intersection LOS						C			

W/MIT.

SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	COLLEGE BLVD.@					
Agency or Co.	USAI					Area Type	MARRON RD.					
Date Performed	08/29/12					Jurisdiction	All other areas					
Time Period	AM PEAK					Analysis Year	OCEANSIDE-INT.#14/WITH					
						MITIGAT						
						NEAR-TERM/NO PROJECT						
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	1	1	1	1	1	2	2	2	2	2	0
Lane group	L	T	R	L	T	R	L	T	R	L	T	
Volume (vph)	115	34	120	407	87	264	153	783	256	197	1001	
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Arrival type	4	4	4	4	4	5	5	5	5	5	5	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	5	5	0	5	5	0	5	5	0	5		
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0	0	0	0	0	0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Phasing	Excl. Left	WB Only	Thru & RT	04			Excl. Left	SB Only	Thru & RT	08		
Timing	G = 10.0	G = 10.0	G = 10.0	G =			G = 8.0	G = 6.0	G = 32.0	G =		
	Y = 4	Y = 4	Y = 4	Y =			Y = 4	Y = 4	Y = 4	Y =		
Duration of Analysis (hrs) = 0.25						Cycle Length C = 100.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	125	37	130	442	95	287	166	851	278	214	1088	
Lane group cap.	344	186	337	425	447	558	275	1135	1631	619	1490	
v/c ratio	0.36	0.20	0.39	1.04	0.21	0.51	0.60	0.75	0.17	0.35	0.73	
Green ratio	0.10	0.10	0.22	0.24	0.24	0.36	0.08	0.32	0.60	0.18	0.42	
Unif. delay d1	42.0	41.3	33.2	38.0	30.4	25.1	44.5	30.4	8.9	35.9	24.3	
Delay factor k	0.11	0.11	0.11	0.50	0.11	0.12	0.19	0.30	0.11	0.11	0.29	
Increm. delay d2	0.7	0.5	0.7	54.4	0.2	0.8	3.7	2.8	0.0	0.3	1.9	
PF factor	1.000	1.000	1.000	1.000	1.000	0.625	0.942	0.686	0.125	0.854	0.517	
Control delay	42.7	41.8	34.0	92.4	30.7	16.5	45.6	23.7	1.2	30.9	14.4	
Lane group LOS	D	D	C	F	C	B	D	C	A	C	B	
Apprch. delay	38.7			58.9			21.7			17.1		
Approach LOS	D			E			C			B		
Intersec. delay	29.7			Intersection LOS						C		

W/MRT

SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	COLLEGE BLVD.@					
Agency or Co.	USAI					Area Type	MARRON RD.					
Date Performed	08/30/12					Jurisdiction	All other areas					
Time Period	PM PEAK					Analysis Year	OCEANSIDE-INT.#14/WI					
						MITIGATIO						
						NEAR-TERM NO PROJECT						
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	1	1	1	1	1	2	2	2	2	2	0
Lane group	L	T	R	L	T	R	L	T	R	L	T	
Volume (vph)	470	229	244	180	145	167	222	952	445	327	812	
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Arrival type	5	5	5	5	5	5	5	5	5	5	5	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	45	5		
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0	0	0	0	0	0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Phasing	Excl. Left	Thru & RT	03		04		Excl. Left	Thru & RT	07		08	
Timing	G = 17.0	G = 15.0	G =		G =		G = 13.5	G = 38.5	G =		G =	
	Y = 3	Y = 4.5	Y =		Y =		Y = 3	Y = 5	Y =		Y =	
Duration of Analysis (hrs) = 0.25						Cycle Length C = 99.5						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	511	249	265	196	158	182	241	1035	435	355	883	
Lane group cap.	553	262	495	285	267	495	432	1364	1018	432	1337	
v/c ratio	0.92	0.95	0.54	0.69	0.59	0.37	0.56	0.76	0.43	0.82	0.66	
Green ratio	0.16	0.14	0.32	0.16	0.14	0.32	0.13	0.38	0.38	0.13	0.38	
Unif. delay d1	41.2	42.4	27.7	39.4	40.1	26.0	40.9	27.1	23.0	42.4	25.7	
Delay factor k	0.44	0.46	0.14	0.26	0.18	0.11	0.16	0.31	0.11	0.36	0.24	
Increm. delay d2	21.4	42.1	1.1	6.8	3.5	0.5	1.6	2.5	0.3	12.1	1.2	
PF factor	0.872	0.891	0.684	0.872	0.891	0.684	0.904	0.597	0.597	0.904	0.597	
Control delay	57.3	79.9	20.1	41.2	39.2	18.2	38.6	18.7	14.0	50.4	16.6	
Lane group LOS	E	E	C	D	D	B	D	B	B	D	B	
Apprch. delay	53.2			32.8			20.3			26.3		
Approach LOS	D			C			C			C		
Intersec. delay	30.9			Intersection LOS						C		

SHORT REPORT													
General Information							Site Information						
Analyst	USAI						Intersection	COLLEGE BLVD.@ CARLSBAD VILL.					
Agency or Co.	USAI						Area Type	All other areas					
Date Performed	06/03/12						Jurisdiction	CARLSBAD-INT.#15					
Time Period	AM PEAK						Analysis Year	EXISTING PLUS OTHER PROJECTS					
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	1	1	1	1	1	0	1	2	0	1	2	0	
Lane group	L	LT	R	L	TR		L	TR		L	TR		
Volume (vph)	419	3	106	1	9	11	74	516	1	4	1611	432	
% Heavy veh	1	1	1	1	1	1	1	2	1	1	2	1	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0		
Ext. eff. green	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0		
Arrival type	4	4	4	4	4		5	5		5	5		
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0		
Ped/Bike/RTOR Volume	5	5	0	5	5	0	5	5	0	5	5	200	
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0	0	0	0		0	0		0	0		
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0		
Phasing	EB Only	EW Perm	03	04	Excl. Left	Thru & RT	07	08					
Timing	G = 17.0	G = 10.0	G =	G =	G = 13.0	G = 65.0	G =	G =					
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 5	Y =	Y =					
Duration of Analysis (hrs) = 0.25							Cycle Length C = 125.0						
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	221	223	112	1	21		78	544		4	1940		
Lane group cap.	393	388	211	141	134		186	1844		186	1805		
v/c ratio	0.56	0.57	0.53	0.01	0.16		0.42	0.30		0.02	1.07		
Green ratio	0.26	0.26	0.14	0.08	0.08		0.10	0.52		0.10	0.52		
Unif. delay d1	39.5	40.6	50.3	52.9	53.6		52.5	17.0		50.3	30.0		
Delay factor k	0.16	0.17	0.13	0.11	0.11		0.11	0.11		0.11	0.50		
Increm. delay d2	1.8	2.1	2.6	0.0	0.5		1.5	0.1		0.0	44.5		
PF factor	1.000	1.000	1.000	1.000	1.000		0.923	0.278		0.923	0.278		
Control delay	41.4	42.7	52.8	53.0	54.1		49.9	4.8		46.4	52.8		
Lane group LOS	D	D	D	D	D		D	A		D	D		
Apprch. delay	44.2			54.1			10.5			52.8			
Approach LOS	D			D			B			D			
Intersec. delay	42.9			Intersection LOS						D			

SHORT REPORT													
General Information							Site Information						
Analyst	USAI						Intersection	COLLEGE BLVD.@					
Agency or Co.	USAI						Area Type	CARLSBAD VILL.					
Date Performed	06/03/12						Jurisdiction	All other areas					
Time Period	PM PEAK						Analysis Year	CARLSBAD-INT.#15					
							EXISTING PLUS OTHER PROJECTS						
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	1	1	1	1	1	0	1	2	0	1	2	0	
Lane group	L	LT	R	L	TR		L	TR		L	TR		
Volume (vph)	384	10	70	1	3	3	181	1283	1	13	645	440	
% Heavy veh	1	1	1	1	1	1	1	2	1	1	2	1	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0		
Ext. eff. green	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0		
Arrival type	4	4	4	4	4		5	5		5	5		
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0		
Ped/Bike/RTOR Volume	5	5	0	5	5	0	5	5	0	5	5	150	
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0	0	0	0		0	0		0	0		
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0		
Phasing	EB Only	EW Perm	03		04		Excl. Left	Thru & RT	07		08		
Timing	G = 17.0	G = 10.0	G =		G =		G = 14.0	G = 59.0	G =		G =		
	Y = 5	Y = 5	Y =		Y =		Y = 5	Y = 5	Y =		Y =		
Duration of Analysis (hrs) = 0.25								Cycle Length C = 120.0					
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	202	213	74	1	6		191	1352		14	984		
Lane group cap.	423	419	220	147	142		208	1743		208	1653		
v/c ratio	0.48	0.51	0.34	0.01	0.04		0.92	0.78		0.07	0.60		
Green ratio	0.27	0.27	0.14	0.08	0.08		0.12	0.49		0.12	0.49		
Unif. delay d1	36.4	37.3	46.4	50.4	50.6		52.4	25.1		47.2	21.9		
Delay factor k	0.11	0.12	0.11	0.11	0.11		0.44	0.33		0.11	0.18		
Increm. delay d2	0.9	1.0	0.9	0.0	0.1		40.4	2.3		0.1	0.6		
PF factor	1.000	1.000	1.000	1.000	1.000		0.912	0.355		0.912	0.355		
Control delay	37.3	38.4	47.3	50.5	50.7		88.2	11.2		43.2	8.4		
Lane group LOS	D	D	D	D	D		F	B		D	A		
Apprch. delay	39.3			50.7			20.7			8.9			
Approach LOS	D			D			C			A			
Intersec. delay	19.9			Intersection LOS						B			

SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	COLLEGE BLVD. @ CANNON RD.					
Agency or Co.	USAI					Area Type	All other areas					
Date Performed	06/03/12					Jurisdiction	CARLSBAD-INT.#16					
Time Period	AM PEAK					Analysis Year	EXISTING PLUS OTHER PROJECTS					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	2	0	1	2	0	2	2	0	2	2	0
Lane group	L	TR		L	TR		L	TR		L	TR	
Volume (vph)	244	139	58	90	60	37	126	241	210	88	728	724
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Arrival type	5	5		5	5		5	5		5	5	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	5	5	0	5	5	0	5	5	0	5	5	0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0		0	0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08				
Timing	G = 11.0	G = 20.0	G =	G =	G = 12.0	G = 62.0	G =	G =				
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 5	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 125.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	257	207		95	102		133	475		93	1528	
Lane group cap.	302	538		156	529		330	1623		330	1613	
v/c ratio	0.85	0.38		0.61	0.19		0.40	0.29		0.28	0.95	
Green ratio	0.09	0.16		0.09	0.16		0.10	0.50		0.10	0.50	
Unif. delay d1	56.2	47.0		54.9	45.5		53.1	18.6		52.5	29.9	
Delay factor k	0.38	0.11		0.19	0.11		0.11	0.11		0.11	0.46	
Increm. delay d2	20.1	0.5		6.7	0.2		0.8	0.1		0.5	12.2	
PF factor	0.936	0.873		0.936	0.873		0.929	0.344		0.929	0.344	
Control delay	72.7	41.5		58.1	39.9		50.2	6.5		49.2	22.5	
Lane group LOS	E	D		E	D		D	A		D	C	
Apprch. delay	58.8			48.7			16.0			24.0		
Approach LOS	E			D			B			C		
Intersec. delay	29.6			Intersection LOS						C		

SHORT REPORT												
General Information						Site Information						
Analyst Agency or Co. Date Performed Time Period						Intersection Area Type Jurisdiction Analysis Year						
USA/ USA/ 06/03/12 PM PEAK						COLLEGE BLVD.@ CANNON RD. All other areas CARLSBAD-INT.#16 EXISTING PLUS OTHER PROJECTS						
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	2	0	1	2	0	2	2	0	2	2	0
Lane group	L	TR		L	TR		L	TR		L	TR	
Volume (vph)	722	46	152	90	60	37	76	740	60	25	345	279
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Arrival type	5	5		5	5		5	5		5	5	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	5	5	0	5	5	0	5	5	0	5	5	0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0		0	0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08				
Timing	G = 30.0	G = 18.0	G =	G =	G = 12.0	G = 50.0	G =	G =				
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 5	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 130.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	760	208		95	102		80	842		26	657	
Lane group cap.	793	424		408	457		317	1347		317	1262	
v/c ratio	0.96	0.49		0.23	0.22		0.25	0.63		0.08	0.52	
Green ratio	0.23	0.14		0.23	0.14		0.09	0.38		0.09	0.38	
Unif. delay d1	49.4	51.8		40.6	49.8		54.8	32.4		54.0	30.8	
Delay factor k	0.47	0.11		0.11	0.11		0.11	0.21		0.11	0.13	
Increm. delay d2	22.3	0.9		0.3	0.2		0.4	0.9		0.1	0.4	
PF factor	0.800	0.893		0.800	0.893		0.932	0.583		0.932	0.583	
Control delay	61.8	47.1		32.8	44.7		51.5	19.8		50.4	18.3	
Lane group LOS	E	D		C	D		D	B		D	B	
Apprch. delay	58.7			39.0			22.6			19.6		
Approach LOS	E			D			C			B		
Intersec. delay	35.6			Intersection LOS						D		

SHORT REPORT													
General Information						Site Information							
Analyst	USAI					Intersection	VISTA WAY@SR78WB OFF-ON RAMP						
Agency or Co.	USAI					Area Type	All other areas						
Date Performed	08/29/12					Jurisdiction	OCEANSIDE-INT.#17						
Time Period	AM PEAK					Analysis Year	NEAR-TERM/NO PROJECT						
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	1	2	1	2	2	0	1	1	1	0	2	0	
Lane group	L	T	R	L	TR		L	LT	R		LTR		
Volume (vph)	78	623	284	218	237	37	719	61	205	43	68	35	
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0		
Ext. eff. green	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0		2.0		
Arrival type	5	5	5	5	5		3	3	3		3		
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0		
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5	10	0	
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0		12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0	0	0	0		0	0	0		0		
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0		
Phasing	Excl. Left	Thru & RT	03		04		SB Only		NB Only		07 08		
Timing	G = 11.0	G = 27.0	G =		G =		G = 9.0		G = 37.0		G =		
	Y = 4	Y = 4	Y =		Y =		Y = 4		Y = 4		Y =		
Duration of Analysis (hrs) = 0.25			Cycle Length C = 100.0										
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	82	656	299	229	288		606	215	216		154		
Lane group cap.	177	922	961	344	898		634	645	557		265		
v/c ratio	0.46	0.71	0.31	0.67	0.32		0.96	0.33	0.39		0.58		
Green ratio	0.10	0.26	0.62	0.10	0.26		0.36	0.36	0.36		0.08		
Unif. delay d1	42.5	33.6	8.9	43.4	29.9		31.2	23.3	23.8		44.4		
Delay factor k	0.11	0.27	0.11	0.24	0.11		0.47	0.11	0.11		0.17		
Increm. delay d2	1.9	2.6	0.2	4.8	0.2		25.2	0.3	0.4		3.2		
PF factor	0.926	0.766	0.132	0.926	0.766		1.000	1.000	1.000		1.000		
Control delay	41.2	28.3	1.4	45.0	23.1		56.4	23.6	24.3		47.6		
Lane group LOS	D	C	A	D	C		E	C	C		D		
Apprch. delay	21.6			32.8			42.9			47.6			
Approach LOS	C			C			D			D			
Intersec. delay	33.2			Intersection LOS						C			

SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	VISTA WAY@SR78WB OFF-ON RAMP					
Agency or Co.	USAI					Area Type	All other areas					
Date Performed	08/29/12					Jurisdiction	OCEANSIDE-INT.#17					
Time Period	PM PEAK					Analysis Year	NEAR-TERM/NO PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	2	1	2	2	0	1	1	1	0	2	0
Lane group	L	T	R	L	TR		L	LT	R		LTR	
Volume (vph)	86	547	312	362	530	33	918	62	135	65	83	56
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0	
Ext. eff. green	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0		2.0	
Arrival type	5	5	5	5	5		3	3	3		3	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0	
Ped/Bike/RTOR Volume	5		0	5	10	0	5	10	0	5	10	0
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0		12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0		0	0	0		0	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0	
Phasing	Excl. Left	WB Only	Thru & RT	04		SB Only	NB Only	07		08		
Timing	G = 10.0	G = 9.0	G = 19.0	G =		G = 10.0	G = 42.0	G =		G =		
	Y = 4	Y = 4	Y = 4	Y =		Y = 4	Y = 4	Y =		Y =		
Duration of Analysis (hrs) = 0.25				Cycle Length C = 110.0								
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	91	576	328	381	593		531	500	142		214	
Lane group cap.	145	580	849	687	987		656	663	577		269	
v/c ratio	0.63	0.99	0.39	0.55	0.60		0.81	0.75	0.25		0.80	
Green ratio	0.08	0.16	0.54	0.20	0.28		0.37	0.37	0.37		0.08	
Unif. delay d1	48.9	45.9	14.9	39.6	34.2		31.0	30.1	23.8		49.6	
Delay factor k	0.21	0.49	0.11	0.15	0.19		0.35	0.31	0.11		0.34	
Increm. delay d2	8.3	35.5	0.3	1.0	1.0		7.5	4.9	0.2		15.2	
PF factor	0.941	0.870	0.229	0.833	0.738		1.000	1.000	1.000		1.000	
Control delay	54.3	75.5	3.7	34.0	26.2		38.5	35.0	24.1		64.8	
Lane group LOS	D	E	A	C	C		D	D	C		E	
Apprch. delay	49.9			29.3			35.3			64.8		
Approach LOS	D			C			D			E		
Intersec. delay	39.7			Intersection LOS						D		

SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	PLAZA BLVD.@SR-78EB					
Agency or Co.	USAI					Area Type	OFF-ON RAM					
Date Performed	08/29/12					Jurisdiction	All other areas					
Time Period	AM PEAK					Analysis Year	OCEANSIDE-INT.#18					
						NEAR-TERM/NO PROJECT						
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	2	0	1	2	0	1	1	1	1	1	0
Lane group	L	TR		L	TR		L	LT	R	L	TR	
Volume (vph)	878	204	23	24	253	36	31	3	7	65	11	36
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Arrival type	4	4		4	4		3	3	3	3	3	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5	10	0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0	0	0	0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Phasing	Excl. Left	EB Only	Thru & RT	04		SB Only	NB Only		07		08	
Timing	G = 5.0	G = 39.0	G = 21.0	G =		G = 10.0	G = 5.0		G =		G =	
	Y = 4	Y = 4	Y = 4	Y =		Y = 4	Y = 4		Y =		Y =	
Duration of Analysis (hrs) = 0.25				Cycle Length C = 100.0								
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	924	239		25	304		33	3	7	68	50	
Lane group cap.	1609	2194		71	693		67	75	57	157	143	
v/c ratio	0.57	0.11		0.35	0.44		0.49	0.04	0.12	0.43	0.35	
Green ratio	0.47	0.63		0.04	0.20		0.04	0.04	0.04	0.09	0.09	
Unif. delay d1	19.2	7.3		46.7	35.1		47.0	46.2	46.3	43.1	42.8	
Delay factor k	0.17	0.11		0.11	0.11		0.11	0.11	0.11	0.11	0.11	
Increm. delay d2	0.5	0.0		3.0	0.4		5.6	0.2	1.0	1.9	1.5	
PF factor	0.810	0.497		1.000	1.000		1.000	1.000	1.000	1.000	1.000	
Control delay	16.1	3.7		49.7	35.5		52.6	46.4	47.3	45.0	44.2	
Lane group LOS	B	A		D	D		D	D	D	D	D	
Apprch. delay	13.5			36.6			51.3			44.7		
Approach LOS	B			D			D			D		
Intersec. delay	21.3			Intersection LOS						C		

SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	PLAZA BLVD.@SR-78EB					
Agency or Co.	USAI					Area Type	OFF-ON RAM					
Date Performed	08/29/12					Jurisdiction	All other areas					
Time Period	PM PEAK					Analysis Year	OCEANSIDE-INT.#18					
						NEAR-TERM/NO PROJECT						
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	2	0	1	2	0	1	1	1	1	1	0
Lane group	L	TR		L	TR		L	LT	R	L	TR	
Volume (vph)	924	324	55	96	354	59	145	44	54	123	38	52
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Arrival type	5	5		5	5		3	3	3	5	3	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5	10	0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0	0	0	0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Phasing	Excl. Left	EB Only	Thru & RT	04		SB Only	NB Only	07		08		
Timing	G = 14.0	G = 26.0	G = 23.0	G =		G = 15.0	G = 12.0	G =		G =		
	Y = 4	Y = 4	Y = 4	Y =		Y = 4	Y = 4	Y =		Y =		
Duration of Analysis (hrs) = 0.25				Cycle Length C = 110.0								
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	973	399		101	435		84	115	57	129	95	
Lane group cap.	1336	1632		209	691		174	179	151	223	212	
v/c ratio	0.73	0.24		0.48	0.63		0.48	0.64	0.38	0.58	0.45	
Green ratio	0.39	0.47		0.12	0.20		0.10	0.10	0.10	0.13	0.13	
Unif. delay d1	28.5	17.3		45.4	40.3		46.8	47.6	46.3	45.2	44.4	
Delay factor k	0.29	0.11		0.11	0.21		0.11	0.22	0.11	0.17	0.11	
Increm. delay d2	2.0	0.1		1.8	1.8		2.1	7.6	1.6	3.7	1.5	
PF factor	0.572	0.402		0.911	0.833		1.000	1.000	1.000	0.903	1.000	
Control delay	18.4	7.0		43.1	35.4		48.9	55.2	47.9	44.5	45.9	
Lane group LOS	B	A		D	D		D	E	D	D	D	
Apprch. delay	15.1			36.8			51.5			45.1		
Approach LOS	B			D			D			D		
Intersec. delay	26.7			Intersection LOS						C		

SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection LAKE BLVD.@THUNDER DR.						
Agency or Co.	USAI					Area Type All other areas						
Date Performed	08/29/12					Jurisdiction OCEANSIDE-INT.#19						
Time Period	AM PEAK					Analysis Year NEAR-TERM/NO PROJECT						
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	2	0	1	2	0	1	1	0	1	1	0
Lane group	L	TR		L	TR		L	TR		L	TR	
Volume (vph)	137	270	2	2	528	84	0	2	2	53	2	191
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	3.0	3.0		3.0	3.0		2.0	3.0		3.0	3.0	
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Arrival type	3	3		3	3		3	3		3	3	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5		0	5		0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0		0	0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08				
Timing	G = 13.0	G = 42.0	G =	G =	G = 8.0	G = 19.1	G =	G =				
	Y = 4.2	Y = 5.3	Y =	Y =	Y = 4.2	Y = 4.2	Y =	Y =				
Duration of Analysis (hrs) = 0.25			Cycle Length C = 100.0									
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	149	295		2	665		0	4		58	210	
Lane group cap.	212	1452		212	1418		142	312		124	287	
v/c ratio	0.70	0.20		0.01	0.47		0.00	0.01		0.47	0.73	
Green ratio	0.12	0.41		0.12	0.41		0.08	0.18		0.07	0.18	
Unif. delay d1	42.3	19.0		38.8	21.5		42.3	33.6		44.7	38.7	
Delay factor k	0.27	0.11		0.11	0.11		0.11	0.11		0.11	0.29	
Increm. delay d2	10.0	0.1		0.0	0.2		0.0	0.0		2.8	9.2	
PF factor	1.000	1.000		1.000	1.000		1.000	1.000		1.000	1.000	
Control delay	52.3	19.1		38.8	21.8		42.3	33.6		47.5	47.9	
Lane group LOS	D	B		D	C		D	C		D	D	
Apprch. delay	30.2			21.8			33.6			47.8		
Approach LOS	C			C			C			D		
Intersec. delay	29.6			Intersection LOS						C		

SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection LAKE BLVD.@THUNDER DR.						
Agency or Co.	USAI					Area Type All other areas						
Date Performed	08/29/12					Jurisdiction OCEANSIDE-INT.#19						
Time Period	PM PEAK					Analysis Year NEAR-TERM/NO PROJECT						
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	2	0	1	2	0	1	1	0	1	1	0
Lane group	L	TR		L	TR		L	TR		L	TR	
Volume (vph)	252	562	5	5	320	99	1	2	6	124	3	133
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Arrival type	3	3		3	3		3	3		3	3	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5		0	5		0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0		0	0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Phasing	Excl. Left	EW Perm	Thru & RT	04			Excl. Left	Thru & RT	07			08
Timing	G = 4.0	G = 15.0	G = 40.0	G =			G = 13.0	G = 14.8	G =			G =
	Y = 4.2	Y = 5.3	Y = 5.3	Y =			Y = 4.2	Y = 4.2	Y =			Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 110.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	274	616		5	456		1	9		135	148	
Lane group cap.	357	1909		115	1202		193	206		193	199	
v/c ratio	0.77	0.32		0.04	0.38		0.01	0.04		0.70	0.74	
Green ratio	0.20	0.54		0.20	0.35		0.11	0.13		0.11	0.13	
Unif. delay d1	41.5	14.1		35.7	26.5		43.7	42.3		47.3	46.4	
Delay factor k	0.32	0.11		0.11	0.11		0.11	0.11		0.27	0.30	
Increm. delay d2	9.7	0.1		0.2	0.2		0.0	0.1		10.7	14.0	
PF factor	1.000	1.000		1.000	1.000		1.000	1.000		1.000	1.000	
Control delay	51.2	14.2		35.9	26.7		43.7	42.4		57.9	60.4	
Lane group LOS	D	B		D	C		D	D		E	E	
Apprch. delay	25.6			26.8			42.5			59.3		
Approach LOS	C			C			D			E		
Intersec. delay	31.8			Intersection LOS						C		

SHORT REPORT													
General Information							Site Information						
Analyst	USAI						Intersection	COLLEGE BLVD.@					
Agency or Co.	USAI						Area Type	WARING ROAD					
Date Performed	08/28/12						Jurisdiction	All other areas					
Time Period	AM PEAK						Analysis Year	OCEANSIDE					
							EXISTING PLUS OTHER PROJECTS						
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	0	1	1	1	1	0	2	2	1	1	2	1	
Lane group		LT	R	L	TR		L	T	R	L	T	R	
Volume (vph)	25	32	178	107	47	43	436	704	195	71	1268	138	
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2	
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time		2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	
Ext. eff. green		2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	
Arrival type		4	4	4	4		5	5	5	5	5	5	
Unit Extension		3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	5	5	90	5	5	0	5		0	5	5	0	
Lane Width		12.0	12.0	12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr		0	0	0	0		0	0	0	0	0	0	
Unit Extension		3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	
Phasing	EB Only	WB Only	03		04		Excl. Left	Thru & RT		07		08	
Timing	G = 14.0	G = 7.0	G =		G =		G = 15.1	G = 44.0		G =		G =	
	Y = 4.6	Y = 4	Y =		Y =		Y = 4.6	Y = 6.7		Y =		Y =	
Duration of Analysis (hrs) = 0.25							Cycle Length C = 100.0						
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate		62	96	116	98		474	765	212	77	1378	150	
Lane group cap.		255	215	124	118		519	1561	697	267	1561	684	
v/c ratio		0.24	0.45	0.94	0.83		0.91	0.49	0.30	0.29	0.88	0.22	
Green ratio		0.14	0.14	0.07	0.07		0.15	0.44	0.44	0.15	0.44	0.44	
Unif. delay d1		38.3	39.4	46.3	45.9		41.8	20.0	18.1	37.7	25.6	17.4	
Delay factor k		0.11	0.11	0.45	0.37		0.43	0.11	0.11	0.11	0.41	0.11	
Increm. delay d2		0.5	1.5	61.0	37.0		20.7	0.2	0.2	0.6	6.3	0.2	
PF factor		1.000	1.000	1.000	1.000		0.881	0.476	0.476	0.881	0.476	0.476	
Control delay		38.8	40.9	107.3	82.9		57.5	9.8	8.9	33.8	18.5	8.4	
Lane group LOS		D	D	F	F		E	A	A	C	B	A	
Approch. delay	40.1			96.1			25.2			18.3			
Approach LOS	D			F			C			B			
Intersec. delay	27.1			Intersection LOS						C			

SHORT REPORT												
General Information							Site Information					
Analyst	USAI						COLLEGE BLVD. @					
Agency or Co.	USAI						WARING RD.					
Date Performed	08/28/12						All other areas					
Time Period	PM PEAK						OCEANSIDE-INT#20					
							EXISTING PLUS OTHER PROJECTS					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	1	1	1	1	0	2	2	1	1	2	1
Lane group		LT	R	L	TR		L	T	R	L	T	R
Volume (vph)	103	54	386	129	51	116	376	1355	164	68	1038	78
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time		2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Ext. eff. green		2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Arrival type		4	5	4	4		5	5	5	5	5	5
Unit Extension		3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Ped/Bike/RTOR Volume	5	5	190	5	5	0	5	5	65	5	5	0
Lane Width		12.0	12.0	12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr		0	0	0	0		0	0	0	0	0	0
Unit Extension		3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Phasing	EB Only	WB Only	03	04	Excl. Left	NB Only	Thru & RT	08				
Timing	G = 14.0	G = 12.0	G =	G =	G = 9.0	G = 10.1	G = 40.0	G =				
	Y = 4.6	Y = 4	Y =	Y =	Y = 4.6	Y = 5	Y = 6.7	Y =				
Duration of Analysis (hrs) = 0.25							Cycle Length C = 110.0					
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate		171	213	140	181		409	1473	108	74	1128	85
Lane group cap.		228	195	191	177		741	1777	771	145	1290	565
v/c ratio		0.75	1.09	0.73	1.02		0.55	0.83	0.14	0.51	0.87	0.15
Green ratio		0.13	0.13	0.11	0.11		0.22	0.50	0.50	0.08	0.36	0.36
Unif. delay d1		46.3	48.0	47.4	49.0		38.4	23.4	14.7	48.4	32.7	23.6
Delay factor k		0.31	0.50	0.29	0.50		0.15	0.37	0.11	0.12	0.40	0.11
Increment. delay d2		13.0	91.3	13.6	73.7		0.9	3.4	0.1	3.0	7.0	0.1
PF factor		1.000	0.903	1.000	1.000		0.817	0.331	0.331	0.941	0.619	0.619
Control delay		59.3	134.6	61.0	122.7		32.3	11.2	5.0	48.5	27.2	14.7
Lane group LOS		E	F	E	F		C	B	A	D	C	B
Approch. delay		101.0			95.8		15.2			27.6		
Approach LOS		F			F		B			C		
Intersec. delay		34.0			Intersection LOS						C	

W/M.T.

SHORT REPORT														
General Information						Site Information								
Analyst	USAI					COLLEGE BLVD.@ WARING ROAD								
Agency or Co.	USAI					Area Type All other areas								
Date Performed	08/28/12					Jurisdiction OCEANSIDE/MITIGATION								
Time Period	AM PEAK					Analysis Year EXISTING PLUS OTHER PROJECTS								
Volume and Timing Input														
	EB			WB			NB			SB				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
Num. of Lanes	0	1	1	1	1	0	2	3	0	1	2	1		
Lane group		LT	R	L	TR		L	TR		L	T	R		
Volume (vph)	25	32	178	107	47	43	436	704	195	71	1268	138		
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2		
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92		
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A		
Startup lost time		2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	2.0		
Ext. eff. green		2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	2.0		
Arrival type		4	4	4	4		5	5		5	5	5		
Unit Extension		3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0		
Ped/Bike/RTOR Volume	5	5	90	5	5	0	5		0	5	5	0		
Lane Width		12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0	12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N		
Parking/hr														
Bus stops/hr		0	0	0	0		0	0		0	0	0		
Unit Extension		3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0		
Phasing	EB Only	WB Only	03		04		Excl. Left		Thru & RT		07		08	
Timing	G = 14.0	G = 7.0	G =		G =		G = 15.1		G = 44.0		G =		G =	
	Y = 4.6	Y = 4	Y =		Y =		Y = 4.6		Y = 6.7		Y =		Y =	
Duration of Analysis (hrs) = 0.25						Cycle Length C = 100.0								
Lane Group Capacity, Control Delay, and LOS Determination														
	EB			WB			NB			SB				
Adj. flow rate		62	96	116	98		474	977		77	1378	150		
Lane group cap.		255	215	124	118		519	2160		267	1561	684		
v/c ratio		0.24	0.45	0.94	0.83		0.91	0.45		0.29	0.88	0.22		
Green ratio		0.14	0.14	0.07	0.07		0.15	0.44		0.15	0.44	0.44		
Unif. delay d1		38.3	39.4	46.3	45.9		41.8	19.6		37.7	25.6	17.4		
Delay factor k		0.11	0.11	0.45	0.37		0.43	0.11		0.11	0.41	0.11		
Increm. delay d2		0.5	1.5	61.0	37.0		20.7	0.2		0.6	6.3	0.2		
PF factor		1.000	1.000	1.000	1.000		0.881	0.476		0.881	0.476	0.476		
Control delay		38.8	40.9	107.3	82.9		57.5	9.5		33.8	18.5	8.4		
Lane group LOS		D	D	F	F		E	A		C	B	A		
Apprch. delay		40.1			96.1		25.2			18.3				
Approach LOS		D			F		C			B				
Intersec. delay		27.1			Intersection LOS						C			

W/MIT.

SHORT REPORT

General Information				Site Information			
Analyst	USAI			Intersection	COLLEGE BLVD.@ WARING RD.		
Agency or Co.	USAI			Area Type	All other areas		
Date Performed	08/28/12			Jurisdiction	OCEANSIDE-INT#20MITIGATION		
Time Period	PM PEAK			Analysis Year	EXISTING PLUS OTHER PROJECTS		

Volume and Timing Input

			EB			WB			NB			SB			
			LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes			0	1	1	1	1	0	2	3	0	1	2	1	
Lane group				LT	R	L	TR		L	TR		L	T	R	
Volume (vph)			103	54	386	129	51	116	376	1355	164	68	1038	78	
% Heavy veh			2	2	2	2	2	2	2	2	2	2	2	2	
PHF			0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Actuated (P/A)			A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time				2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	2.0	
Ext. eff. green				2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	2.0	
Arrival type				4	5	4	4		5	5		5	5	5	
Unit Extension				3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0	
Ped/Bike/RTOR Volume			5	5	190	5	5	0	5	5	65	5	5	0	
Lane Width				12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0	12.0	
Parking/Grade/Parking			N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr															
Bus stops/hr				0	0	0	0		0	0		0	0	0	
Unit Extension				3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0	
Phasing	EB Only	WB Only	03		04		Excl. Left		NB Only		Thru & RT		08		
Timing	G = 14.0	G = 12.0	G =		G =		G = 9.0		G = 10.1		G = 40.0		G =		
	Y = 4.6	Y = 4	Y =		Y =		Y = 4.6		Y = 5		Y = 6.7		Y =		
Duration of Analysis (hrs) = 0.25										Cycle Length C = 110.0					

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate		171	213	140	181		409	1581		74	1128	85
Lane group cap.		228	195	191	177		741	2511		145	1290	565
v/c ratio		0.75	1.09	0.73	1.02		0.55	0.63		0.51	0.87	0.15
Green ratio		0.13	0.13	0.11	0.11		0.22	0.50		0.08	0.36	0.36
Unif. delay d1		46.3	48.0	47.4	49.0		38.4	20.0		48.4	32.7	23.6
Delay factor k		0.31	0.50	0.29	0.50		0.15	0.21		0.12	0.40	0.11
Increm. delay d2		13.0	91.3	13.6	73.7		0.9	0.5		3.0	7.0	0.1
PF factor		1.000	0.903	1.000	1.000		0.817	0.331		0.941	0.619	0.619
Control delay		59.3	134.6	61.0	122.7		32.3	7.1		48.5	27.2	14.7
Lane group LOS		E	F	E	F		C	A		D	C	B
Apprch. delay	101.0			95.8			12.3			27.6		
Approach LOS	F			F			B			C		
Intersec. delay	32.5			Intersection LOS						C		

SHORT REPORT												
General Information						Site Information						
Analyst	USA/					Intersection	MARRON RD.@QUARRY CREEK CTR.					
Agency or Co.	USA/					Area Type	All other areas					
Date Performed	06/03/12					Jurisdiction	OCEANSIDE					
Time Period	AM PEAK					Analysis Year	NEAR-TERM/NO PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	2	0	2	2	1	0	1	1	1	1	1
Lane group	L	TR		L	T	R		LTR	R	L	LT	R
Volume (vph)	0	15	0	173	16	157	0	5	84	145	5	0
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0
Ext. eff. green	2.0	2.0		2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0
Arrival type	3	3		3	3	3		3	3	3	3	3
Unit Extension	3.0	3.0		3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5	10	0
Lane Width	12.0	12.0		12.0	12.0	12.0		12.0	12.0	12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0	0		0	0	0	0	0
Unit Extension	3.0	3.0		3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0
Phasing	Excl. Left	Thru & RT	03	04	NB Only	SB Only	07	08				
Timing	G = 10.0	G = 20.0	G =	G =	G = 10.0	G = 10.0	G =	G =				
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 5	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 70.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	0	16		188	17	171		5	91	95	68	0
Lane group cap.	491	1013		491	1013	663		266	212	248	250	218
v/c ratio	0.00	0.02		0.38	0.02	0.26		0.02	0.43	0.38	0.27	0.00
Green ratio	0.14	0.29		0.14	0.29	0.43		0.14	0.14	0.14	0.14	0.14
Unif. delay d1	25.7	17.9		27.2	17.9	12.8		25.8	27.4	27.2	26.8	25.7
Delay factor k	0.11	0.11		0.11	0.11	0.11		0.11	0.11	0.11	0.11	0.11
Increm. delay d2	0.0	0.0		0.5	0.0	0.2		0.0	1.4	1.0	0.6	0.0
PF factor	1.000	1.000		1.000	1.000	1.000		1.000	1.000	1.000	1.000	1.000
Control delay	25.7	17.9		27.7	17.9	13.1		25.8	28.8	28.2	27.3	25.7
Lane group LOS	C	B		C	B	B		C	C	C	C	C
Apprch. delay	17.9			20.6			28.6			27.8		
Approach LOS	B			C			C			C		
Intersec. delay	23.5			Intersection LOS						C		

SHORT REPORT													
General Information							Site Information						
Analyst	USAI						Intersection						MARRON RD.@QUARRY
Agency or Co.	USAI						Area Type						CREEK CTR.
Date Performed	06/03/12						Jurisdiction						All other areas
Time Period	PM PEAK						Analysis Year						OCEANSIDE
							NEAR-TERM/NO PROJECT						
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	2	2	0	2	2	1	0	1	1	1	1	1	
Lane group	L	TR		L	T	R		LTR	R	L	LT	R	
Volume (vph)	0	55	0	350	33	319	0	5	290	509	5	0	
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2	
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	2.0	2.0		2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Ext. eff. green	2.0	2.0		2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Arrival type	3	3		3	3	3		3	3	3	3	5	
Unit Extension	3.0	3.0		3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	25	5	10	0	
Lane Width	12.0	12.0		12.0	12.0	12.0		12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0		0	0	0		0	0	0	0	0	
Unit Extension	3.0	3.0		3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Phasing	Excl. Left	Thru & RT	03	04	NB Only	SB Only	07	08					
Timing	G = 15.0	G = 15.0	G =	G =	G = 18.0	G = 32.0	G =	G =					
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 5	Y =	Y =					
Duration of Analysis (hrs) = 0.25							Cycle Length C = 100.0						
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	0	60		380	36	347		146	147	332	226	0	
Lane group cap.	516	532		516	532	725		272	270	563	565	495	
v/c ratio	0.00	0.11		0.74	0.07	0.48		0.54	0.54	0.59	0.40	0.00	
Green ratio	0.15	0.15		0.15	0.15	0.47		0.18	0.18	0.32	0.32	0.32	
Unif. delay d1	36.1	36.7		40.6	36.5	18.1		37.2	37.3	28.5	26.5	23.1	
Delay factor k	0.11	0.11		0.29	0.11	0.11		0.14	0.14	0.18	0.11	0.11	
Increm. delay d2	0.0	0.1		5.5	0.1	0.5		2.1	2.3	1.6	0.5	0.0	
PF factor	1.000	1.000		1.000	1.000	1.000		1.000	1.000	1.000	1.000	1.000	
Control delay	36.1	36.8		46.1	36.5	18.6		39.3	39.6	30.1	27.0	23.1	
Lane group LOS	D	D		D	D	B		D	D	C	C	C	
Apprch. delay	36.8			33.2			39.4			28.9			
Approach LOS	D			C			D			C			
Intersec. delay	33.0			Intersection LOS						C			

APPENDIX C

Near-Term With Project

- **INTERSECTION LOS WORKSHEETS**
- **FAIR SHARE CALCULATIONS**
- **ARTERIAL ANALYSIS WORKSHEETS**

SHORT REPORT												
General Information							Site Information					
Analyst	USAI						Intersection EL CAMINO REAL@ VISTA WAY					
Agency or Co.	USAI						Area Type All other areas					
Date Performed	08/15/12						Jurisdiction OCEANSIDE-INT.#1					
Time Period	AM PEAK						Analysis Year NEAR-TERM/WITH PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	2	1	2	2	0	2	3	0	2	3	0
Lane group	L	T	R	L	TR		L	TR		L	TR	
Volume (vph)	23	46	75	407	111	73	109	869	286	83	1707	60
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Ext. eff. green	3.0	2.0	1.2	2.0	2.0		1.2	5.0		0.8	5.8	
Arrival type	3	3	3	3	3		5	5		5	5	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5	10	0
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0		0	0		0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Phasing	Excl. Left	WB Only	Thru & RT	04			Excl. Left	Thru & RT	07			08
Timing	G = 10.3	G = 13.5	G = 17.8	G =			G = 15.5	G = 48.6	G =			G =
	Y = 5.2	Y = 5.6	Y = 5.6	Y =			Y = 5.2	Y = 6.3	Y =			Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 133.6						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	25	50	82	442	200		118	1256		90	1920	
Lane group cap.	136	446	426	720	888		352	1841		342	1941	
v/c ratio	0.18	0.11	0.19	0.61	0.23		0.34	0.68		0.26	0.99	
Green ratio	0.08	0.13	0.28	0.21	0.27		0.10	0.38		0.10	0.38	
Unif. delay d1	57.7	51.8	36.8	47.9	38.0		55.7	34.8		55.6	40.8	
Delay factor k	0.11	0.11	0.11	0.20	0.11		0.11	0.25		0.11	0.49	
Increm. delay d2	0.7	0.1	0.2	1.6	0.1		0.6	1.1		0.4	17.9	
PF factor	1.000	1.000	1.000	1.000	1.000		0.924	0.594		0.926	0.583	
Control delay	58.4	51.9	37.0	49.5	38.2		52.0	21.7		51.9	41.7	
Lane group LOS	E	D	D	D	D		D	C		D	D	
Apprch. delay	45.2			45.9			24.3			42.1		
Approach LOS	D			D			C			D		
Intersec. delay	37.0			Intersection LOS						D		

SHORT REPORT													
General Information							Site Information						
Analyst	USAI						Intersection						EL CAMINO REAL@ VISTA WAY
Agency or Co.	USAI						Area Type						All other areas
Date Performed	08/15/12						Jurisdiction						OCEANSIDE-INT.#1
Time Period	PM PEAK						Analysis Year						NEAR-TERM/WITH PROJECT
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	1	2	1	2	2	0	2	3	0	2	3	0	
Lane group	L	T	R	L	TR		L	TR		L	TR		
Volume (vph)	183	314	372	374	213	142	441	1823	539	172	1351	165	
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2	
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0		
Ext. eff. green	3.0	2.0	1.2	2.0	2.0		1.2	5.0		0.8	5.8		
Arrival type	3	3	3	3	3		5	5		5	5		
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0		
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5	10	0	
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0	0	0	0		0	0		0	0		
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0		
Phasing	Excl. Left	Thru & RT	03		04		Excl. Left	NB Only	Thru & RT	08			
Timing	G = 16.0	G = 22.3	G =		G =		G = 12.2	G = 12.8	G = 41.7	G =			
	Y = 5.2	Y = 5.6	Y =		Y =		Y = 5.2	Y = 6.3	Y = 6.3	Y =			
Duration of Analysis (hrs) = 0.25							Cycle Length C = 133.6						
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	199	341	404	407	386		479	2568		187	1647		
Lane group cap.	212	566	650	386	524		731	2293		257	1658		
v/c ratio	0.94	0.60	0.62	1.05	0.74		0.66	1.12		0.73	0.99		
Green ratio	0.12	0.16	0.42	0.11	0.16		0.21	0.47		0.07	0.33		
Unif. delay d1	58.3	52.2	30.3	59.3	53.5		48.1	35.4		60.5	44.4		
Delay factor k	0.45	0.19	0.20	0.50	0.29		0.23	0.50		0.29	0.49		
Increm. delay d2	44.8	1.8	1.8	60.8	5.4		2.1	60.5		10.0	20.5		
PF factor	1.000	1.000	1.000	1.000	1.000		0.820	0.409		0.946	0.667		
Control delay	103.1	54.0	32.1	120.1	58.9		41.6	75.0		67.2	50.1		
Lane group LOS	F	D	C	F	E		D	E		E	D		
Apprch. delay	55.0			90.3			69.7			51.8			
Approach LOS	E			F			E			D			
Intersec. delay	65.1			Intersection LOS						E			

MITIGATION: ADD NB RT0
LANE

SHORT REPORT												
General Information						Site Information						
Analyst Agency or Co. Date Performed Time Period						Intersection Area Type Jurisdiction Analysis Year						
USA/ USA/ 08/15/12 AM PEAK						EL CAMINO REAL@ VISTA WAY All other areas OCEANSIDE-INT.#1/WITH MIT. NEAR-TERM/WITH PROJECT						
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	2	1	2	2	0	2	3	1	2	3	0
Lane group	L	T	R	L	TR		L	T	R	L	TR	
Volume (vph)	23	46	75	407	111	73	109	869	286	83	1707	60
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	3.0	3.0	3.0	3.0	3.0		3.0	3.0	2.0	3.0	3.0	
Ext. eff. green	3.0	2.0	1.2	2.0	2.0		1.2	5.0	2.0	0.8	5.8	
Arrival type	3	3	3	3	3		5	5	5	5	5	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5	10	0
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0		0	0	0	0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Phasing	Excl. Left	WB Only	Thru & RT	04			Excl. Left	Thru & RT	07			08
Timing	G = 10.3	G = 13.5	G = 17.8	G =			G = 15.5	G = 48.6	G =			G =
	Y = 5.2	Y = 5.6	Y = 5.6	Y =			Y = 5.2	Y = 6.3	Y =			Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 133.6						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	25	50	82	442	200		118	945	311	90	1920	
Lane group cap.	136	446	426	720	888		352	1922	563	342	1941	
v/c ratio	0.18	0.11	0.19	0.61	0.23		0.34	0.49	0.55	0.26	0.99	
Green ratio	0.08	0.13	0.28	0.21	0.27		0.10	0.38	0.36	0.10	0.38	
Unif. delay d1	57.7	51.8	36.8	47.9	38.0		55.7	31.7	33.8	55.6	40.8	
Delay factor k	0.11	0.11	0.11	0.20	0.11		0.11	0.11	0.15	0.11	0.49	
Increm. delay d2	0.7	0.1	0.2	1.6	0.1		0.6	0.2	1.2	0.4	17.9	
PF factor	1.000	1.000	1.000	1.000	1.000		0.924	0.594	0.619	0.926	0.583	
Control delay	58.4	51.9	37.0	49.5	38.2		52.0	19.0	22.1	51.9	41.7	
Lane group LOS	E	D	D	D	D		D	B	C	D	D	
Apprch. delay	45.2			45.9			22.5			42.1		
Approach LOS	D			D			C			D		
Intersec. delay	36.4			Intersection LOS						D		

WITH MITIGATION: ADD NB RTD LANE

SHORT REPORT												
General Information						Site Information						
Analyst USAI Agency or Co. USAI Date Performed 08/15/12 Time Period PM PEAK						Intersection EL CAMINO REAL@ VISTA WAY Area Type All other areas Jurisdiction OCEANSIDE-INT.#1/WITH MIT. Analysis Year NEAR-TERM/WITH PROJECT						
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	2	1	2	2	0	2	3	1	2	3	0
Lane group	L	T	R	L	TR		L	T	R	L	TR	
Volume (vph)	183	314	372	374	213	142	441	1823	539	172	1351	165
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	3.0	3.0	3.0	3.0	3.0		3.0	3.0	2.0	3.0	3.0	
Ext. eff. green	3.0	2.0	1.2	2.0	2.0		1.2	5.0	2.0	0.8	5.8	
Arrival type	3	3	3	3	3		5	5	5	5	5	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5	10	0
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0		0	0	0	0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Phasing	Excl. Left	Thru & RT	03		04		Excl. Left	NB Only	Thru & RT	08		
Timing	G = 16.0	G = 22.3	G =		G =		G = 12.2	G = 12.8	G = 41.7	G =		
	Y = 5.2	Y = 5.6	Y =		Y =		Y = 5.2	Y = 6.3	Y = 6.3	Y =		
Duration of Analysis (hrs) = 0.25						Cycle Length C = 133.6						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	199	341	404	407	386		479	1982	586	187	1647	
Lane group cap.	212	566	650	386	524		731	2385	706	257	1658	
v/c ratio	0.94	0.60	0.62	1.05	0.74		0.66	0.83	0.83	0.73	0.99	
Green ratio	0.12	0.16	0.42	0.11	0.16		0.21	0.47	0.46	0.07	0.33	
Unif. delay d1	58.3	52.2	30.3	59.3	53.5		48.1	30.8	31.9	60.5	44.4	
Delay factor k	0.45	0.19	0.20	0.50	0.29		0.23	0.37	0.37	0.29	0.49	
Increm. delay d2	44.8	1.8	1.8	60.8	5.4		2.1	2.6	8.3	10.0	20.5	
PF factor	1.000	1.000	1.000	1.000	1.000		0.820	0.409	0.443	0.946	0.667	
Control delay	103.1	54.0	32.1	120.1	58.9		41.6	15.2	22.4	67.2	50.1	
Lane group LOS	F	D	C	F	E		D	B	C	E	D	
Apprch. delay	55.0			90.3			20.7			51.8		
Approach LOS	E			F			C			D		
Intersec. delay	42.6			Intersection LOS						D		

SHORT REPORT												
General Information						Site Information						
Analyst USAI Agency or Co. USAI Date Performed 08/22/12 Time Period AM PEAK						Intersection EL CAMINO REAL@ SR-78WB RAMPS Area Type All other areas Jurisdiction OCEANSIDE-INT.#2 Analysis Year NEAR-TERM WITH PROJECT						
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	0	0	1	1	1	2	3	0	0	3	1
Lane group				L	LTR	R	L	T			T	R
Volume (vph)				386	5	408	157	812			1727	458
% Heavy veh				2	2	2	2	2			2	2
PHF				0.92	0.92	0.92	0.92	0.92			0.92	0.92
Actuated (P/A)				A	A	A	A	A			A	A
Startup lost time				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Ext. eff. green				2.0	2.0	2.0	2.0	2.0			2.0	2.0
Arrival type				3	3	3	5	5			5	5
Unit Extension				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Ped/Bike/RTOR Volume	10			10		75				10	5	250
Lane Width				12.0	12.0	12.0	12.0	12.0			12.0	12.0
Parking/Grade/Parking	N		N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr				0	0	0	0	0			0	0
Unit Extension				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Phasing	WB Only	02	03	04	NB Only	Thru & RT	07	08				
Timing	G = 31.0	G =	G =	G =	G = 13.7	G = 39.0	G =	G =				
	Y = 5.1	Y =	Y =	Y =	Y = 4.2	Y = 7	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 100.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate				294	240	253	171	883			1877	226
Lane group cap.				531	508	475	436	2836			1928	588
v/c ratio				0.55	0.47	0.53	0.39	0.31			0.97	0.38
Green ratio				0.30	0.30	0.30	0.13	0.56			0.38	0.38
Unif. delay d1				29.4	28.5	29.2	40.1	11.8			30.5	22.5
Delay factor k				0.15	0.11	0.14	0.11	0.11			0.48	0.11
Increm. delay d2				1.3	0.7	1.2	0.6	0.1			14.7	0.4
PF factor				1.000	1.000	1.000	0.903	0.155			0.591	0.591
Control delay				30.6	29.2	30.3	36.8	1.9			32.8	13.7
Lane group LOS				C	C	C	D	A			C	B
Apprch. delay				30.1			7.6			30.7		
Approach LOS				C			A			C		
Intersec. delay	24.4			Intersection LOS						C		

SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection EL CAMINO REAL@ SR-78WB RAMPS						
Agency or Co.	USAI					Area Type All other areas						
Date Performed	08/22/12					Jurisdiction OCEANSIDE-INT.#2						
Time Period	PM PEAK					Analysis Year NEAR-TERM WITH PROJECT						
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	0	0	1	1	1	2	3	0	0	3	1
Lane group				L	LTR	R	L	T			T	R
Volume (vph)				521	10	737	247	2026			1561	505
% Heavy veh				2	2	2	2	2			2	2
PHF				0.92	0.92	0.92	0.92	0.92			0.92	0.92
Actuated (P/A)				A	A	A	A	A			A	A
Startup lost time				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Ext. eff. green				2.0	2.0	2.0	2.0	2.0			2.0	2.0
Arrival type				3	3	3	5	5			5	5
Unit Extension				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Ped/Bike/RTOR Volume	10			10		0				10	5	0
Lane Width				12.0	12.0	12.0	12.0	12.0			12.0	12.0
Parking/Grade/Parking	N		N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr				0	0	0	0	0			0	0
Unit Extension				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Phasing	WB Only	02	03	04	NB Only	Thru & RT	07	08				
Timing	G = 31.0	G =	G =	G =	G = 13.7	G = 39.0	G =	G =				
	Y = 5.1	Y =	Y =	Y =	Y = 4.2	Y = 7	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 100.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate				419	398	561	268	2202			1697	549
Lane group cap.				531	499	475	436	2836			1928	588
v/c ratio				0.79	0.80	1.18	0.61	0.78			0.88	0.93
Green ratio				0.30	0.30	0.30	0.13	0.56			0.38	0.38
Unif. delay d1				32.1	32.2	35.0	41.3	17.2			28.9	29.8
Delay factor k				0.34	0.34	0.50	0.20	0.33			0.41	0.45
Increm. delay d2				7.9	8.9	101.3	2.6	1.4			5.1	22.2
PF factor				1.000	1.000	1.000	0.903	0.155			0.591	0.591
Control delay				40.0	41.1	136.3	39.9	4.1			22.2	39.8
Lane group LOS				D	D	F	D	A			C	D
Apprch. delay				79.5			8.0			26.5		
Approach LOS				E			A			C		
Intersec. delay	31.0			Intersection LOS						C		

SHORT REPORT													
General Information							Site Information						
Analyst	USAI						Intersection						EL CAMINO REAL@ SR-
Agency or Co.	USAI						Area Type						78EB RAMPS
Date Performed	08/22/12						Jurisdiction						All other areas
Time Period	AM PEAK						Analysis Year						OCEANSIDE=INT#3
													NEAR-TERM WITH PROJECT
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	2	0	1	0	0	0	0	3	1	2	3	0	
Lane group	L		R					T	R	L	T		
Volume (vph)	356		190					668	355	511	1567		
% Heavy veh	2		2					2	2	2	2		
PHF	0.92		0.92					0.92	0.92	0.92	0.92		
Actuated (P/A)	A		A					A	A	A	A		
Startup lost time	3.0		3.0					3.0	3.0	3.0	3.0		
Ext. eff. green	2.0		2.0					2.0	2.0	2.0	2.0		
Arrival type	3		3					5	5	5	5		
Unit Extension	3.0		3.0					3.0	3.0	3.0	3.0		
Ped/Bike/RTOR Volume	5		0	5			5	10	0				
Lane Width	12.0		12.0					12.0	12.0	12.0	12.0		
Parking/Grade/Parking	N	0	N	N		N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0		0					0	0	0	0		
Unit Extension	3.0		3.0					3.0	3.0	3.0	3.0		
Phasing	EB Only	02	03	04	SB Only	Thru & RT	07	08					
Timing	G = 20.0	G =	G =	G =	G = 38.0	G = 50.2	G =	G =					
	Y = 5.1	Y =	Y =	Y =	Y = 4.7	Y = 7	Y =	Y =					
Duration of Analysis (hrs) = 0.25							Cycle Length C = 125.0						
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	387		207					726	386	555	1703		
Lane group cap.	522		241					1997	610	1017	3730		
v/c ratio	0.74		0.86					0.36	0.63	0.55	0.46		
Green ratio	0.15		0.15					0.39	0.39	0.30	0.74		
Unif. delay d1	50.7		51.7					26.8	30.6	36.9	6.6		
Delay factor k	0.30		0.39					0.11	0.21	0.15	0.11		
Increm. delay d2	5.6		25.3					0.1	2.1	0.6	0.1		
PF factor	1.000		1.000					0.567	0.567	0.720	0.189		
Control delay	56.3		77.0					15.3	19.5	27.2	1.3		
Lane group LOS	E		E					B	B	C	A		
Apprch. delay	63.5						16.8			7.7			
Approach LOS	E						B			A			
Intersec. delay	18.6			Intersection LOS						B			

SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	EL CAMINO REAL@ SR-78EB RAMPS					
Agency or Co.	USAI					Area Type	All other areas					
Date Performed	08/22/12					Jurisdiction	OCEANSIDE-INT#3					
Time Period	PM PEAK					Analysis Year	NEAR-TERM WITH PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	0	1	0	0	0	0	3	1	2	3	0
Lane group	L		R					T	R	L	T	
Volume (vph)	647		354					1553	591	534	1551	
% Heavy veh	2		2					2	2	2	2	
PHF	0.92		0.92					0.92	0.92	0.92	0.92	
Actuated (P/A)	A		A					A	A	A	A	
Startup lost time	3.0		3.0					3.0	3.0	3.0	3.0	
Ext. eff. green	2.0		2.0					2.0	2.0	2.0	2.0	
Arrival type	3		3					5	5	5	5	
Unit Extension	3.0		3.0					3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	5		0	5			5	10	80			
Lane Width	12.0		12.0					12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N		N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0		0					0	0	0	0	
Unit Extension	3.0		3.0					3.0	3.0	3.0	3.0	
Phasing	EB Only	02	03	04	SB Only	Thru & RT	07	08				
Timing	G = 22.0	G =	G =	G =	G = 32.0	G = 54.2	G =	G =				
	Y = 5.1	Y =	Y =	Y =	Y = 4.7	Y = 7	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 125.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	703		385					1688	555	580	1686	
Lane group cap.	577		266					2159	660	852	3649	
v/c ratio	1.22		1.45					0.78	0.84	0.68	0.46	
Green ratio	0.17		0.17					0.43	0.43	0.25	0.72	
Unif. delay d1	52.0		52.0					30.9	32.1	42.5	7.4	
Delay factor k	0.50		0.50					0.33	0.38	0.25	0.11	
Increment. delay d2	113.4		221.2					1.9	9.6	2.2	0.1	
PF factor	1.000		1.000					0.506	0.506	0.780	0.178	
Control delay	165.4		273.2					17.6	25.8	35.4	1.4	
Lane group LOS	F		F					B	C	D	A	
Approch. delay	203.5						19.6			10.1		
Approach LOS	F						B			B		
Intersec. delay	51.5			Intersection LOS						D		

SHORT REPORT													
General Information							Site Information						
Analyst	USAI						Intersection						EL CAMINO REAL@ PLAZA
Agency or Co.	USAI						Area Type						All other areas
Date Performed	06/03/12						Jurisdiction						CARLSBAD
Time Period	AM PEAK						Analysis Year						EXISTING + OTHER + PROJECT
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	1	1	1	1	1	1	2	3	0	2	3	0	
Lane group	L	LT	R	L	LT	R	L	TR		L	TR		
Volume (vph)	44	3	15	42	16	79	34	771	48	204	1117	97	
% Heavy veh	1	1	1	1	1	1	1	2	1	1	2	1	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0		
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0		
Arrival type	4	4	4	4	4	4	5	5		5	5		
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		
Ped/Bike/RTOR Volume	5	5	0	5	5	0	5	5	0	5	5	0	
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0	0	0	0	0	0	0		0	0		
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		
Phasing	EB Only	WB Only	03	04	Excl. Left	Thru & RT	07	08					
Timing	G = 10.0	G = 10.0	G =	G =	G = 14.0	G = 65.0	G =	G =					
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 6	Y =	Y =					
Duration of Analysis (hrs) = 0.25							Cycle Length C = 120.0						
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	46	3	16	37	24	83	36	863		215	1278		
Lane group cap.	149	157	309	149	155	373	405	2723		405	2714		
v/c ratio	0.31	0.02	0.05	0.25	0.15	0.22	0.09	0.32		0.53	0.47		
Green ratio	0.08	0.08	0.20	0.08	0.08	0.24	0.12	0.54		0.12	0.54		
Unif. delay d1	51.7	50.5	38.8	51.5	51.1	36.5	47.3	15.2		49.9	16.9		
Delay factor k	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11		0.13	0.11		
Increm. delay d2	1.2	0.0	0.1	0.9	0.5	0.3	0.1	0.1		1.3	0.1		
PF factor	1.000	1.000	1.000	1.000	1.000	1.000	0.912	0.212		0.912	0.212		
Control delay	52.9	50.5	38.9	52.4	51.5	36.8	43.2	3.3		46.9	3.7		
Lane group LOS	D	D	D	D	D	D	D	A		D	A		
Apprch. delay	49.4			43.2			4.9			9.9			
Approach LOS	D			D			A			A			
Intersec. delay	11.0			Intersection LOS						B			

SHORT REPORT												
General Information							Site Information					
Analyst	USAI						Intersection EL CAMINO REAL@ PLAZA DR.					
Agency or Co.	USAI						Area Type All other areas					
Date Performed	06/03/12						Jurisdiction CARLSBAD					
Time Period	PM PEAK						Analysis Year EXISTING + OTHER + PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	1	1	1	1	1	2	3	0	2	3	0
Lane group	L	LT	R	L	LT	R	L	TR		L	TR	
Volume (vph)	437	30	68	53	25	187	61	1440	36	360	1082	297
% Heavy veh	1	1	1	1	1	1	1	2	1	1	2	1
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Arrival type	4	4	4	4	4	4	5	5		5	5	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	5	5	0	5	5	0	5	5	0	5	5	0
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0	0	0	0		0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Phasing	EB Only	WB Only	03	04	Excl. Left	Thru & RT	07	08				
Timing	G = 20.0	G = 14.0	G =	G =	G = 16.0	G = 59.0	G =	G =				
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 6	Y =	Y =				
Duration of Analysis (hrs) = 0.25							Cycle Length C = 130.0					
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	230	262	72	36	46	197	64	1554		379	1452	
Lane group cap.	275	277	431	192	198	418	427	2294		427	2225	
v/c ratio	0.84	0.95	0.17	0.19	0.23	0.47	0.15	0.68		0.89	0.65	
Green ratio	0.15	0.15	0.28	0.11	0.11	0.27	0.12	0.45		0.12	0.45	
Unif. delay d1	53.4	54.5	35.6	52.8	53.1	39.8	50.9	28.0		56.1	27.5	
Delay factor k	0.37	0.46	0.11	0.11	0.11	0.11	0.11	0.25		0.41	0.23	
Increm. delay d2	19.7	39.6	0.2	0.5	0.6	0.8	0.2	0.8		19.7	0.7	
PF factor	1.000	1.000	1.000	1.000	1.000	1.000	0.906	0.446		0.906	0.446	
Control delay	73.1	94.1	35.8	53.3	53.7	40.6	46.3	13.3		70.6	13.0	
Lane group LOS	E	F	D	D	D	D	D	B		E	B	
Approch. delay	78.1			44.4			14.6			24.9		
Approach LOS	E			D			B			C		
Intersec. delay	29.3			Intersection LOS						C		

SHORT REPORT													
General Information							Site Information						
Analyst	USAI						Intersection	EL CAMINO REAL@					
Agency or Co.	USAI						Area Type	MARRON RD.					
Date Performed	06/03/12						Jurisdiction	All other areas					
Time Period	AM PEAK						Analysis Year	CARLSBAD					
							EXISTING + OTHER + PROJECT						
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	1	2	0	1	2	0	2	3	0	2	3	0	
Lane group	L	TR		L	TR		L	TR		L	TR		
Volume (vph)	52	32	98	134	46	108	107	709	93	88	956	126	
% Heavy veh	1	1	1	1	1	1	1	2	1	1	2	1	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0		
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0		
Arrival type	4	4		4	4		5	5		5	5		
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0		
Ped/Bike/RTOR Volume	5		0	5		0	5	5	0	5	5	0	
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0		0	0		0	0		0	0		
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0		
Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08					
Timing	G = 12.0	G = 12.0	G =	G =	G = 14.0	G = 61.0	G =	G =					
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 6	Y =	Y =					
Duration of Analysis (hrs) = 0.25							Cycle Length C = 120.0						
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	55	137		141	162		113	844		93	1139		
Lane group cap.	179	318		179	320		405	2533		405	2532		
v/c ratio	0.31	0.43		0.79	0.51		0.28	0.33		0.23	0.45		
Green ratio	0.10	0.10		0.10	0.10		0.12	0.51		0.12	0.51		
Unif. delay d1	50.1	50.8		52.8	51.2		48.4	17.5		48.1	18.8		
Delay factor k	0.11	0.11		0.33	0.11		0.11	0.11		0.11	0.11		
Increm. delay d2	1.0	0.9		20.5	1.3		0.4	0.1		0.3	0.1		
PF factor	1.000	1.000		1.000	1.000		0.912	0.311		0.912	0.311		
Control delay	51.1	51.7		73.3	52.5		44.5	5.5		44.2	6.0		
Lane group LOS	D	D		E	D		D	A		D	A		
Apprch. delay	51.6			62.2			10.1			8.9			
Approach LOS	D			E			B			A			
Intersec. delay	18.4			Intersection LOS						B			

SHORT REPORT													
General Information							Site Information						
Analyst	USAI						Intersection						EL CAMINO REAL@
Agency or Co.	USAI						Area Type						MARRON RD.
Date Performed	06/03/12						Jurisdiction						All other areas
Time Period	PM PEAK						Analysis Year						CARLSBAD
													EXISTING + OTHER +
													PROJECT
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	1	2	0	1	2	0	2	3	0	2	3	0	
Lane group	L	TR		L	TR		L	TR		L	TR		
Volume (vph)	239	149	200	215	116	176	249	1171	138	242	833	196	
% Heavy veh	1	1	1	1	1	1	1	2	1	1	2	1	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0		
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0		
Arrival type	4	4		4	4		5	5		5	5		
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0		
Ped/Bike/RTOR Volume	5		0	5		0	5	5	0	5	5	0	
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0		0	0		0	0		0	0		
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0		
Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08					
Timing	G = 23.0	G = 25.0	G =	G =	G = 16.0	G = 50.0	G =	G =					
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 6	Y =	Y =					
Duration of Analysis (hrs) = 0.25							Cycle Length C = 135.0						
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	252	368		226	307		262	1378		255	1083		
Lane group cap.	304	606		304	603		411	1848		411	1823		
v/c ratio	0.83	0.61		0.74	0.51		0.64	0.75		0.62	0.59		
Green ratio	0.17	0.19		0.17	0.19		0.12	0.37		0.12	0.37		
Unif. delay d1	54.1	50.5		53.2	49.5		56.7	37.0		56.6	34.3		
Delay factor k	0.37	0.19		0.30	0.12		0.22	0.30		0.20	0.18		
Increm. delay d2	17.2	1.8		9.5	0.7		3.3	1.7		2.9	0.5		
PF factor	1.000	1.000		1.000	1.000		0.910	0.608		0.910	0.608		
Control delay	71.3	52.3		62.7	50.2		54.9	24.2		54.4	21.4		
Lane group LOS	E	D		E	D		D	C		D	C		
Apprch. delay	60.0			55.5			29.1			27.7			
Approach LOS	E			E			C			C			
Intersec. delay	36.7			Intersection LOS						D			

SHORT REPORT													
General Information							Site Information						
Analyst	USAI						Intersection	EL CAMINO REAL@					
Agency or Co.	USAI						Area Type	CARLSBAD VILL.					
Date Performed	06/03/12						Jurisdiction	All other areas					
Time Period	AM PEAK						Analysis Year	CARLSBAD-INT.#6					
							EXISTING + OTHER + PROJECT						
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	1	2	0	1	2	0	1	3	0	1	3	0	
Lane group	L	TR		L	TR		L	TR		L	TR		
Volume (vph)	131	99	109	97	507	143	93	610	31	100	970	65	
% Heavy veh	1	1	1	1	1	1	1	2	1	1	2	1	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0		
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0		
Arrival type	4	4		4	4		5	5		5	5		
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0		
Ped/Bike/RTOR Volume	5		0	5		0	5	5	0	5	5	0	
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0		0	0		0	0		0	0		
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0		
Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08					
Timing	G = 17.0	G = 30.0	G =	G =	G = 14.0	G = 48.0	G =	G =					
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 6	Y =	Y =					
Duration of Analysis (hrs) = 0.25							Cycle Length C = 130.0						
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	138	219		102	685		98	675		105	1089		
Lane group cap.	234	762		234	799		192	1859		192	1855		
v/c ratio	0.59	0.29		0.44	0.86		0.51	0.36		0.55	0.59		
Green ratio	0.13	0.23		0.13	0.23		0.11	0.37		0.11	0.37		
Unif. delay d1	53.2	41.2		52.1	47.9		54.8	29.9		55.0	33.0		
Delay factor k	0.18	0.11		0.11	0.39		0.12	0.11		0.15	0.18		
Increm. delay d2	3.9	0.2		1.3	9.2		2.3	0.1		3.3	0.5		
PF factor	1.000	1.000		1.000	1.000		0.920	0.610		0.920	0.610		
Control delay	57.1	41.4		53.4	57.2		52.6	18.3		53.8	20.6		
Lane group LOS	E	D		D	E		D	B		D	C		
Apprch. delay	47.5			56.7			22.7			23.5			
Approach LOS	D			E			C			C			
Intersec. delay	34.5			Intersection LOS						C			

SHORT REPORT													
General Information							Site Information						
Analyst	USAI						Intersection	EL CAMINO REAL@					
Agency or Co.	USAI						Area Type	CARLSBAD VILL.					
Date Performed	06/03/12						Jurisdiction	All other areas					
Time Period	PM PEAK						Analysis Year	CARLSBAD-INT.#6					
							EXISTING + OTHER + PROJECT						
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	1	2	0	1	2	0	1	3	0	1	3	0	
Lane group	L	TR		L	TR		L	TR		L	TR		
Volume (vph)	165	257	130	56	202	157	153	1279	79	202	879	136	
% Heavy veh	1	1	1	1	1	1	1	2	1	1	2	1	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0		
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0		
Arrival type	4	4		4	4		5	5		5	5		
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0		
Ped/Bike/RTOR Volume	5		0	5		0	5	5	0	5	5	0	
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0		0	0		0	0		0	0		
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0		
Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08					
Timing	G = 17.0	G = 18.0	G =	G =	G = 20.0	G = 54.0	G =	G =					
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 6	Y =	Y =					
Duration of Analysis (hrs) = 0.25							Cycle Length C = 130.0						
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	174	408		59	378		161	1429		213	1068		
Lane group cap.	234	471		234	463		275	2088		275	2063		
v/c ratio	0.74	0.87		0.25	0.82		0.59	0.68		0.77	0.52		
Green ratio	0.13	0.14		0.13	0.14		0.15	0.42		0.15	0.42		
Unif. delay d1	54.4	54.8		50.8	54.4		51.1	31.0		52.8	28.3		
Delay factor k	0.30	0.40		0.11	0.36		0.18	0.25		0.32	0.12		
Increm. delay d2	12.1	15.6		0.6	10.9		3.2	0.9		12.9	0.2		
PF factor	1.000	1.000		1.000	1.000		0.879	0.526		0.879	0.526		
Control delay	66.5	70.4		51.4	65.3		48.2	17.3		59.4	15.1		
Lane group LOS	E	E		D	E		D	B		E	B		
Apprch. delay	69.2			63.4			20.4			22.5			
Approach LOS	E			E			C			C			
Intersec. delay	33.2			Intersection LOS						C			

SHORT REPORT												
General Information						Site Information						
Analyst Agency or Co. Date Performed Time Period						Intersection Area Type Jurisdiction Analysis Year						
USA/ USA/ 06/03/12 AM PEAK						VISTA WAY@RANCHO DEL ORO RD. All other areas OCEANSIDE EXISTING + OTHER + PROJECT						
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	2	0	1	2	0	1	1	0	1	1	1
Lane group	L	TR		L	TR		L	TR		L	TR	R
Volume (vph)	203	150	29	61	178	171	13	2	10	343	23	343
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	2.0
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	2.0
Arrival type	5	5		5	5		3	3		5	3	5
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5	10	0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0		0	0	0
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08				
Timing	G = 15.0	G = 20.0	G =	G =	G = 25.0	G = 20.0	G =	G =				
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 5	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 100.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	218	192		66	375		14	13		369	198	196
Lane group cap.	266	687		266	641		443	317		443	309	301
v/c ratio	0.82	0.28		0.25	0.59		0.03	0.04		0.83	0.64	0.65
Green ratio	0.15	0.20		0.15	0.20		0.25	0.20		0.25	0.20	0.20
Unif. delay d1	41.2	33.9		37.5	36.2		28.3	32.3		35.5	36.7	36.8
Delay factor k	0.36	0.11		0.11	0.18		0.11	0.11		0.37	0.22	0.23
Increm. delay d2	18.1	0.2		0.5	1.4		0.0	0.1		12.8	4.4	4.9
PF factor	0.882	0.833		0.882	0.833		1.000	1.000		0.778	1.000	0.833
Control delay	54.4	28.5		33.6	31.6		28.4	32.3		40.4	41.1	35.6
Lane group LOS	D	C		C	C		C	C		D	D	D
Apprch. delay	42.3			31.9			30.3			39.4		
Approach LOS	D			C			C			D		
Intersec. delay	37.9			Intersection LOS						D		

SHORT REPORT													
General Information							Site Information						
Analyst	USAI						Intersection						VISTA WAY@RANCHO DEL
Agency or Co.	USAI						Area Type						ORO RD.
Date Performed	06/03/12						Jurisdiction						All other areas
Time Period	PM PEAK						Analysis Year						OCEANSIDE
													EXISTING + OTHER + PROJECT
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	1	2	0	1	2	0	1	1	0	1	1	1	
Lane group	L	TR		L	TR		L	TR		L	TR	R	
Volume (vph)	473	450	9	11	321	320	26	31	8	272	8	308	
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2	
PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	2.0	
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	2.0	
Arrival type	5	5		5	5		3	3		5	3	5	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0	
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5	10	0	
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0		0	0		0	0		0	0	0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0	
Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08					
Timing	G = 33.0	G = 25.0	G =	G =	G = 19.0	G = 16.0	G =	G =					
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 5	Y =	Y =					
Duration of Analysis (hrs) = 0.25							Cycle Length C = 113.0						
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	493	478		11	667		27	40		283	159	170	
Lane group cap.	517	782		517	709		298	254		298	213	210	
v/c ratio	0.95	0.61		0.02	0.94		0.09	0.16		0.95	0.75	0.81	
Green ratio	0.29	0.22		0.29	0.22		0.17	0.14		0.17	0.14	0.14	
Unif. delay d1	39.2	39.6		28.5	43.3		39.7	42.6		46.5	46.6	47.0	
Delay factor k	0.46	0.20		0.11	0.45		0.11	0.11		0.46	0.30	0.35	
Increm. delay d2	28.2	1.4		0.0	20.6		0.1	0.3		38.7	13.5	20.6	
PF factor	0.725	0.811		0.725	0.811		1.000	1.000		0.865	1.000	0.890	
Control delay	56.7	33.5		20.7	55.7		39.8	42.9		79.0	60.0	62.5	
Lane group LOS	E	C		C	E		D	D		E	E	E	
Approch. delay	45.3			55.1			41.6			69.5			
Approach LOS	D			E			D			E			
Intersec. delay	54.4			Intersection LOS						D			

SHORT REPORT												
General Information							Site Information					
Analyst	USAI						COLLEGE BLVD.@ VISTA WAY					
Agency or Co.	USAI						Area Type All other areas					
Date Performed	08/28/12						Jurisdiction OCEANSIDE					
Time Period	AM PEAK						Analysis Year NEAR-TERM WITH PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	2	1	2	2	0	1	3	1	2	3	0
Lane group	L	T	R	L	TR		L	T	R	L	TR	
Volume (vph)	44	146	414	532	166	238	172	670	862	68	1449	35
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Ext. eff. green	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Arrival type	5	5	5	5	5		5	5	5	5	5	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5	10	0
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0		0	0	0	0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Phasing	Excl. Left	WB Only	Thru & RT	04			Excl. Left	Thru & RT	07			08
Timing	G = 4.0	G = 8.0	G = 7.0	G =			G = 9.5	G = 42.0	G =			G =
	Y = 5.6	Y = 5.6	Y = 6.4	Y =			Y = 5.6	Y = 6.3	Y =			Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 100.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	46	154	436	560	426		181	705	907	72	1562	
Lane group cap.	137	248	347	605	654		168	2131	812	327	2123	
v/c ratio	0.34	0.62	1.26	0.93	0.65		1.08	0.33	1.12	0.22	0.74	
Green ratio	0.04	0.07	0.23	0.18	0.21		0.09	0.42	0.52	0.09	0.42	
Unif. delay d1	46.7	45.2	38.5	40.6	36.4		45.3	19.5	23.9	41.8	24.3	
Delay factor k	0.11	0.20	0.50	0.44	0.23		0.50	0.11	0.50	0.11	0.29	
Increm. delay d2	1.5	4.7	136.9	20.4	2.3		91.6	0.1	68.8	0.3	1.4	
PF factor	0.972	0.950	0.802	0.858	0.827		0.930	0.517	0.313	0.930	0.517	
Control delay	46.9	47.7	167.8	55.1	32.4		133.6	10.2	76.3	39.2	14.0	
Lane group LOS	D	D	F	E	C		F	B	E	D	B	
Apprch. delay	129.9			45.3			56.1			15.1		
Approach LOS	F			D			E			B		
Intersec. delay	50.0			Intersection LOS						D		

SHORT REPORT												
General Information							Site Information					
Analyst	USAI						COLLEGE BLVD.@ VISTA WAY					
Agency or Co.	USAI						Area Type					
Date Performed	08/28/12						All other areas					
Time Period	PM PEAK						Jurisdiction					
							OCEANSIDE/					
							EXISTING + OTHER + PROJECT					
							Analysis Year					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	2	1	2	2	0	1	3	1	2	3	0
Lane group	L	T	R	L	TR		L	T	R	L	TR	
Volume (vph)	118	234	421	772	409	395	313	1242	741	151	1258	92
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Ext. eff. green	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Arrival type	5	5	5	5	5		5	5	5	5	5	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5	10	0
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0		0	0	0	0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Phasing	Excl. Left	WB Only	Thru & RT	04			Excl. Left	NB Only	Thru & RT	08		
Timing	G = 6.0	G = 16.0	G = 10.0	G =			G = 7.0	G = 5.0	G = 31.1	G =		
	Y = 5.6	Y = 5.6	Y = 6.3	Y =			Y = 5.6	Y = 5.6	Y = 6.2	Y =		
Duration of Analysis (hrs) = 0.25								Cycle Length C = 110.0				
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	124	246	443	813	847		329	1307	780	159	1421	
Lane group cap.	187	322	471	862	932		283	1924	1066	219	1418	
v/c ratio	0.66	0.76	0.94	0.94	0.91		1.16	0.68	0.73	0.73	1.00	
Green ratio	0.05	0.09	0.31	0.25	0.29		0.16	0.38	0.69	0.06	0.28	
Unif. delay d1	51.0	48.8	37.1	40.4	37.8		46.2	28.6	10.9	50.6	39.4	
Delay factor k	0.24	0.32	0.45	0.46	0.43		0.50	0.25	0.29	0.29	0.50	
Increm. delay d2	8.5	10.4	27.2	18.4	12.6		104.9	1.0	2.6	11.4	24.4	
PF factor	0.962	0.933	0.703	0.777	0.731		0.873	0.593	0.159	0.955	0.737	
Control delay	57.6	56.0	53.3	49.8	40.3		145.2	17.9	4.4	59.7	53.5	
Lane group LOS	E	E	D	D	D		F	B	A	E	D	
Apprch. delay	54.7			44.9			30.9			54.1		
Approach LOS	D			D			C			D		
Intersec. delay	43.2			Intersection LOS						D		

W/MT

SHORT REPORT													
General Information						Site Information							
Analyst	USAI					Intersection	COLLEGE BLVD.@ VISTA WAY						
Agency or Co.	USAI					Area Type	All other areas						
Date Performed	08/28/12					Jurisdiction	OCEANSIDE/MITIGATION						
Time Period	AM PEAK					Analysis Year	NEAR-TERM WITH PROJECT						
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	2	2	1	2	2	1	1	3	2	2	3	0	
Lane group	L	T	R	L	T	R	L	T	R	L	TR		
Volume (vph)	44	146	414	532	166	238	172	670	862	68	1449	35	
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		
Arrival type	5	5	5	5	5	5	5	5	5	5	5		
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5	10	0	
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0	0	0	0	0	0	0	0	0	0		
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		
Phasing	Excl. Left	WB Only	Thru & RT	04			Excl. Left	Thru & RT	07			08	
Timing	G = 4.0	G = 8.0	G = 7.0	G =			G = 9.5	G = 42.0	G =			G =	
	Y = 5.6	Y = 5.6	Y = 6.4	Y =			Y = 5.6	Y = 6.3	Y =			Y =	
Duration of Analysis (hrs) = 0.25									Cycle Length C = 100.0				
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	46	154	436	560	175	251	181	705	907	72	1562		
Lane group cap.	137	248	347	605	731	316	168	2131	1418	327	2123		
v/c ratio	0.34	0.62	1.26	0.93	0.24	0.79	1.08	0.33	0.64	0.22	0.74		
Green ratio	0.04	0.07	0.23	0.18	0.21	0.21	0.09	0.42	0.52	0.09	0.42		
Unif. delay d1	46.7	45.2	38.5	40.6	33.2	37.7	45.3	19.5	17.1	41.8	24.3		
Delay factor k	0.11	0.20	0.50	0.44	0.11	0.34	0.50	0.11	0.22	0.11	0.29		
Increm. delay d2	1.5	4.7	136.9	20.4	0.2	13.1	91.6	0.1	1.0	0.3	1.4		
PF factor	0.972	0.950	0.802	0.858	0.827	0.827	0.930	0.517	0.269	0.930	0.517		
Control delay	46.9	47.7	167.8	55.1	27.6	44.3	133.6	10.2	5.6	39.2	14.0		
Lane group LOS	D	D	F	E	C	D	F	B	A	D	B		
Apprch. delay	129.9			47.5			20.3			15.1			
Approach LOS	F			D			C			B			
Intersec. delay	37.7			Intersection LOS						D			

WITH/MT

SHORT REPORT												
General Information							Site Information					
Analyst	USAI						Intersection COLLEGE BLVD.@ VISTA WAY					
Agency or Co.	USAI						Area Type All other areas					
Date Performed	08/28/12						Jurisdiction OCEANSIDE/MITIGATION					
Time Period	PM PEAK						Analysis Year EXISTING + OTHER + PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	2	1	2	2	1	1	3	2	2	3	0
Lane group	L	T	R	L	T	R	L	T	R	L	TR	
Volume (vph)	118	234	421	772	409	395	313	1242	741	151	1258	92
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Arrival type	5	5	5	5	5	5	5	5	5	5	5	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5	10	0
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0	0	0	0	0	0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Phasing	Excl. Left	WB Only	Thru & RT	04			Excl. Left	NB Only	Thru & RT	08		
Timing	G = 6.0	G = 16.0	G = 10.0	G =			G = 7.0	G = 5.0	G = 31.1	G =		
	Y = 5.6	Y = 5.6	Y = 6.3	Y =			Y = 5.6	Y = 5.6	Y = 6.2	Y =		
Duration of Analysis (hrs) = 0.25							Cycle Length C = 110.0					
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	124	246	443	813	431	416	329	1307	780	159	1421	
Lane group cap.	187	322	471	862	1019	444	283	1924	1862	219	1418	
v/c ratio	0.66	0.76	0.94	0.94	0.42	0.94	1.16	0.68	0.42	0.73	1.00	
Green ratio	0.05	0.09	0.31	0.25	0.29	0.29	0.16	0.38	0.69	0.06	0.28	
Unif. delay d1	51.0	48.8	37.1	40.4	31.8	38.2	46.2	28.6	7.6	50.6	39.4	
Delay factor k	0.24	0.32	0.45	0.46	0.11	0.45	0.50	0.25	0.11	0.29	0.50	
Increm. delay d2	8.5	10.4	27.2	18.4	0.3	27.6	104.9	1.0	0.2	11.4	24.4	
PF factor	0.962	0.933	0.703	0.777	0.731	0.731	0.873	0.593	0.159	0.955	0.737	
Control delay	57.6	56.0	53.3	49.8	23.5	55.5	145.2	17.9	1.4	59.7	53.5	
Lane group LOS	E	E	D	D	C	E	F	B	A	E	D	
Apprch. delay	54.7			44.4			29.9			54.1		
Approach LOS	D			D			C			D		
Intersec. delay	42.7			Intersection LOS						D		

SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	COLLEGE BLVD. @ SR-78EB OFF-RAM					
Agency or Co.	USAI					Area Type	All other areas					
Date Performed	08/28/12					Jurisdiction	OCEANSIDE					
Time Period	AM PEAK					Analysis Year	EXISTING + OTHER + PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	0	1	0	0	0	0	4	0	0	5	0
Lane group	L		R					T			T	
Volume (vph)	549		272					1155			1946	
% Heavy veh	2		2					2			2	
PHF	0.95		0.95					0.95			0.95	
Actuated (P/A)	A		A					A			A	
Startup lost time	3.0		3.0					3.0			3.0	
Ext. eff. green	2.0		2.0					2.0			2.0	
Arrival type	3		3					5			5	
Unit Extension	3.0		3.0					3.0			3.0	
Ped/Bike/RTOR Volume	5		0	5								
Lane Width	12.0		12.0					12.0			12.0	
Parking/Grade/Parking	N	0	N	N		N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0		0					0			0	
Unit Extension	3.0		3.0					3.0			3.0	
Phasing	EB Only	02	03	04	Thru Only	06	07	08				
Timing	G = 26.0	G =	G =	G =	G = 62.7	G =	G =	G =				
	Y = 5	Y =	Y =	Y =	Y = 6.3	Y =	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 100.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	578		286					1216			2048	
Lane group cap.	859		396					4174			5218	
v/c ratio	0.67		0.72					0.29			0.39	
Green ratio	0.25		0.25					0.62			0.62	
Unif. delay d1	33.8		34.3					8.9			9.7	
Delay factor k	0.24		0.28					0.11			0.11	
Increm. delay d2	2.1		6.4					0.0			0.0	
PF factor	1.000		1.000					0.131			0.131	
Control delay	35.9		40.7					1.2			1.3	
Lane group LOS	D		D					A			A	
Apprch. delay	37.5						1.2			1.3		
Approach LOS	D						A			A		
Intersec. delay	8.9			Intersection LOS						A		

SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	COLLEGE BLVD. @ SR-78EB OFF-RAM					
Agency or Co.	USAI					Area Type	All other areas					
Date Performed	08/28/12					Jurisdiction	OCEANSIDE					
Time Period	PM PEAK					Analysis Year	EXISTING + OTHER + PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	0	1	0	0	0	0	4	0	0	5	0
Lane group	L		R					T			T	
Volume (vph)	497		543					1799			2032	
% Heavy veh	2		2					2			2	
PHF	0.95		0.95					0.95			0.95	
Actuated (P/A)	A		A					A			A	
Startup lost time	3.0		3.0					3.0			3.0	
Ext. eff. green	2.0		2.0					2.0			2.0	
Arrival type	3		3					5			5	
Unit Extension	3.0		3.0					3.0			3.0	
Ped/Bike/RTOR Volume	5		0	5								
Lane Width	12.0		12.0					12.0			12.0	
Parking/Grade/Parking	N	0	N	N		N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0		0					0			0	
Unit Extension	3.0		3.0					3.0			3.0	
Phasing	EB Only	02	03	04	Thru Only	06	07	08				
Timing	G = 36.0	G =	G =	G =	G = 63.2	G =	G =	G =				
	Y = 5.2	Y =	Y =	Y =	Y = 5.6	Y =	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 110.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	523		572					1894			2139	
Lane group cap.	1094		504					3825			4782	
v/c ratio	0.48		1.13					0.50			0.45	
Green ratio	0.32		0.32					0.57			0.57	
Unif. delay d1	30.2		37.5					14.4			13.9	
Delay factor k	0.11		0.50					0.11			0.11	
Increm. delay d2	0.3		82.8					0.1			0.1	
PF factor	1.000		1.000					0.132			0.132	
Control delay	30.5		120.3					2.0			1.9	
Lane group LOS	C		F					A			A	
Apprch. delay	77.4						2.0			1.9		
Approach LOS	E						A			A		
Intersec. delay	18.1			Intersection LOS						B		

SHORT REPORT												
General Information							Site Information					
Analyst	USAI						COLLEGE BLVD.@ PLAZA DR.					
Agency or Co.	USAI						Area Type					
Date Performed	08/28/12						All other areas					
Time Period	AM PEAK						Jurisdiction					
							OCEANSIDE					
							EXISTING + OTHER + PROJECT					
							Analysis Year					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	1	0	1	1	1	1	3	0	2	3	0
Lane group	L	TR		L	T	R	L	TR		L	TR	
Volume (vph)	82	43	64	103	17	228	53	851	371	762	1385	71
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Ext. eff. green	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Arrival type	4	4		4	4	4	5	5		5	5	
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5	10	0
Lane Width	12.0	12.0		12.0	12.0	12.0	12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0	0	0	0		0	0	
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Phasing	EB Only	WB Only	03	04	Excl. Left	SB Only	Thru & RT	08				
Timing	G = 12.0	G = 8.0	G =	G =	G = 10.0	G = 19.0	G = 31.0	G =				
	Y = 4	Y = 4	Y =	Y =	Y = 4	Y = 4	Y = 4	Y =				
Duration of Analysis (hrs) = 0.25			Cycle Length C = 100.0									
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	86	112		108	18	240	56	1287		802	1533	
Lane group cap.	195	182		122	130	672	159	1442		1100	2665	
v/c ratio	0.44	0.62		0.89	0.14	0.36	0.35	0.89		0.73	0.58	
Green ratio	0.11	0.11		0.07	0.07	0.44	0.09	0.30		0.32	0.53	
Unif. delay d1	41.6	42.5		46.1	43.7	18.6	42.8	33.5		30.2	15.9	
Delay factor k	0.11	0.20		0.41	0.11	0.11	0.11	0.42		0.29	0.17	
Increm. delay d2	1.6	6.1		48.3	0.5	0.3	1.3	7.5		2.5	0.3	
PF factor	1.000	1.000		1.000	1.000	0.849	0.934	0.714		0.686	0.248	
Control delay	43.2	48.6		94.4	44.2	16.1	41.3	31.4		23.2	4.3	
Lane group LOS	D	D		F	D	B	D	C		C	A	
Apprch. delay	46.3			40.6			31.8			10.8		
Approach LOS	D			D			C			B		
Intersec. delay	21.6			Intersection LOS						C		

SHORT REPORT												
General Information							Site Information					
Analyst	USAI						COLLEGE BLVD.@ PLAZA					
Agency or Co.	USAI						DR.					
Date Performed	08/28/12						Area Type All other areas					
Time Period	PM PEAK						Jurisdiction OCEANSIDE					
							Analysis Year EXISTING + OTHER + PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	1	0	1	1	1	1	3	0	2	3	0
Lane group	L	TR		L	T	R	L	TR		L	TR	
Volume (vph)	78	44	56	164	23	461	79	1260	204	779	1656	140
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Ext. eff. green	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Arrival type	4	4		4	4	4	5	5		5	5	
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	5	10	0	22	10	0	9	10	0	5	10	0
Lane Width	12.0	12.0		12.0	12.0	12.0	12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0	0	0	0		0	0	
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Phasing	EB Only	WB Only	03	04	Excl. Left	SB Only	Thru & RT	08				
Timing	G = 12.0	G = 15.0	G =	G =	G = 7.0	G = 12.0	G = 39.2	G =				
	Y = 4.2	Y = 5.6	Y =	Y =	Y = 4.2	Y = 5.2	Y = 5.6	Y =				
Duration of Analysis (hrs) = 0.25									Cycle Length C = 110.0			
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	82	105		173	24	485	83	1541		820	1890	
Lane group cap.	177	166		225	237	576	97	1719		694	2520	
v/c ratio	0.46	0.63		0.77	0.10	0.84	0.86	0.90		1.18	0.75	
Green ratio	0.10	0.10		0.13	0.13	0.39	0.05	0.35		0.20	0.50	
Unif. delay d1	46.7	47.6		46.4	42.4	30.5	51.6	34.0		43.9	21.8	
Delay factor k	0.11	0.21		0.32	0.11	0.38	0.39	0.42		0.50	0.31	
Increm. delay d2	1.9	7.6		14.9	0.2	10.9	48.7	6.7		96.1	1.3	
PF factor	1.000	1.000		1.000	1.000	0.906	0.962	0.645		0.831	0.324	
Control delay	48.6	55.2		61.3	42.6	38.5	98.3	28.6		132.6	8.3	
Lane group LOS	D	E		E	D	D	F	C		F	A	
Apprch. delay	52.3			44.5			32.2			45.9		
Approach LOS	D			D			C			D		
Intersec. delay	41.7			Intersection LOS						D		

W/MIT.

SHORT REPORT													
General Information						Site Information							
Analyst	USAI					Intersection	COLLEGE BLVD.@ PLAZA DR.						
Agency or Co.	USAI					Area Type	All other areas						
Date Performed	08/28/12					Jurisdiction	OCEANSIDE/MITIGATION						
Time Period	AM PEAK					Analysis Year	EXISTING + OTHER + PROJECT						
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	1	1	0	1	1	1	1	3	1	2	3	0	
Lane group	L	TR		L	T	R	L	T	R	L	TR		
Volume (vph)	82	43	64	103	17	228	53	851	371	762	1385	71	
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	3.0	3.0		3.0	3.0	3.0	3.0	3.0	2.0	3.0	3.0		
Ext. eff. green	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		
Arrival type	4	4		4	4	4	5	5	5	5	5		
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5	10	0	
Lane Width	12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0		0	0	0	0	0	0	0	0		
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		
Phasing	EB Only	WB Only	03	04	Excl. Left	SB Only	Thru & RT	08					
Timing	G = 12.0	G = 8.0	G =	G =	G = 10.0	G = 19.0	G = 31.0	G =					
	Y = 4	Y = 4	Y =	Y =	Y = 4	Y = 4	Y = 4	Y =					
Duration of Analysis (hrs) = 0.25			Cycle Length C = 100.0										
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	86	112		108	18	240	56	896	391	802	1533		
Lane group cap.	195	182		122	130	672	159	1522	479	1100	2665		
v/c ratio	0.44	0.62		0.89	0.14	0.36	0.35	0.59	0.82	0.73	0.58		
Green ratio	0.11	0.11		0.07	0.07	0.44	0.09	0.30	0.31	0.32	0.53		
Unif. delay d1	41.6	42.5		46.1	43.7	18.6	42.8	29.8	31.9	30.2	15.9		
Delay factor k	0.11	0.20		0.41	0.11	0.11	0.11	0.18	0.36	0.29	0.17		
Increm. delay d2	1.6	6.1		48.3	0.5	0.3	1.3	0.6	10.6	2.5	0.3		
PF factor	1.000	1.000		1.000	1.000	0.849	0.934	0.714	0.700	0.686	0.248		
Control delay	43.2	48.6		94.4	44.2	16.1	41.3	21.9	32.9	23.2	4.3		
Lane group LOS	D	D		F	D	B	D	C	C	C	A		
Apprch. delay	46.3			40.6			25.9			10.8			
Approach LOS	D			D			C			B			
Intersec. delay	19.8			Intersection LOS						B			

w/mt.

SHORT REPORT													
General Information							Site Information						
Analyst	USAI						Intersection	COLLEGE BLVD. @ PLAZA DR.					
Agency or Co.	USAI						Area Type	All other areas					
Date Performed	08/28/12						Jurisdiction	OCEANSIDE/MITIGATION					
Time Period	PM PEAK						Analysis Year	EXISTING + OTHER + PROJECT					
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	1	1	0	1	1	1	1	3	1	2	3	0	
Lane group	L	TR		L	T	R	L	T	R	L	TR		
Volume (vph)	78	44	56	164	23	461	79	1260	204	779	1656	140	
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	3.0	3.0		3.0	3.0	3.0	3.0	3.0	2.0	3.0	3.0		
Ext. eff. green	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		
Arrival type	4	4		4	4	4	5	5	5	5	5		
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		
Ped/Bike/RTOR Volume	5	10	0	22	10	0	9	10	0	5	10	0	
Lane Width	12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0		0	0	0	0	0	0	0	0		
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		
Phasing	EB Only	WB Only	03	04	Excl. Left	SB Only	Thru & RT	08					
Timing	G = 12.0	G = 15.0	G =	G =	G = 7.0	G = 12.0	G = 39.2	G =					
	Y = 4.2	Y = 5.6	Y =	Y =	Y = 4.2	Y = 5.2	Y = 5.6	Y =					
Duration of Analysis (hrs) = 0.25							Cycle Length C = 110.0						
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	82	105		173	24	485	83	1326	215	820	1890		
Lane group cap.	177	166		225	237	576	97	1762	550	694	2520		
v/c ratio	0.46	0.63		0.77	0.10	0.84	0.86	0.75	0.39	1.18	0.75		
Green ratio	0.10	0.10		0.13	0.13	0.39	0.05	0.35	0.36	0.20	0.50		
Unif. delay d1	46.7	47.6		46.4	42.4	30.5	51.6	31.7	26.5	43.9	21.8		
Delay factor k	0.11	0.21		0.32	0.11	0.38	0.39	0.31	0.11	0.50	0.31		
Increm. delay d2	1.9	7.6		14.9	0.2	10.9	48.7	1.9	0.5	96.1	1.3		
PF factor	1.000	1.000		1.000	1.000	0.906	0.962	0.645	0.631	0.831	0.324		
Control delay	48.6	55.2		61.3	42.6	38.5	98.3	22.3	17.2	132.6	8.3		
Lane group LOS	D	E		E	D	D	F	C	B	F	A		
Apprch. delay	52.3			44.5			25.5			45.9			
Approach LOS	D			D			C			D			
Intersec. delay	39.6			Intersection LOS						D			

SHORT REPORT													
General Information							Site Information						
Analyst	USAI						Intersection	COLLEGE BLVD. @ MARRON RD.					
Agency or Co.	USAI						Area Type	All other areas					
Date Performed	08/29/12						Jurisdiction	OCEANSIDE-INT.#14					
Time Period	AM PEAK						Analysis Year	NEAR-TERM WITH PROJECT					
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	2	1	1	1	1	1	2	2	1	2	2	0	
Lane group	L	T	R	L	T	R	L	T	R	L	T		
Volume (vph)	231	43	166	407	90	266	169	798	256	204	1043		
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2		
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92		
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		
Arrival type	4	4	4	4	4	5	5	5	5	5	5		
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		
Ped/Bike/RTOR Volume	5	5	0	5	5	0	5	5	0	5			
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0	0	0	0	0	0	0	0	0	0		
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		
Phasing	Excl. Left	WB Only	Thru & RT	04			Excl. Left	SB Only	Thru & RT	08			
Timing	G = 10.0	G = 10.0	G = 10.0	G =			G = 8.0	G = 6.0	G = 32.0	G =			
	Y = 4	Y = 4	Y = 4	Y =			Y = 4	Y = 4	Y = 4	Y =			
Duration of Analysis (hrs) = 0.25							Cycle Length C = 100.0						
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	251	47	180	442	98	289	184	867	278	222	1134		
Lane group cap.	344	186	337	425	447	558	275	1135	933	619	1490		
v/c ratio	0.73	0.25	0.53	1.04	0.22	0.52	0.67	0.76	0.30	0.36	0.76		
Green ratio	0.10	0.10	0.22	0.24	0.24	0.36	0.08	0.32	0.60	0.18	0.42		
Unif. delay d1	43.7	41.5	34.5	38.0	30.5	25.2	44.7	30.6	9.7	35.9	24.7		
Delay factor k	0.29	0.11	0.14	0.50	0.11	0.12	0.24	0.32	0.11	0.11	0.31		
Increm. delay d2	7.7	0.7	1.7	54.4	0.2	0.9	6.1	3.1	0.2	0.4	2.4		
PF factor	1.000	1.000	1.000	1.000	1.000	0.625	0.942	0.686	0.125	0.854	0.517		
Control delay	51.4	42.3	36.1	92.4	30.7	16.6	48.3	24.1	1.4	31.0	15.1		
Lane group LOS	D	D	D	F	C	B	D	C	A	C	B		
Apprch. delay	44.7			58.7			22.7			17.8			
Approach LOS	D			E			C			B			
Intersec. delay	31.1			Intersection LOS						C			

SHORT REPORT												
General Information						Site Information						
Analyst Agency or Co. Date Performed Time Period						COLLEGE BLVD.@ MARRON RD. All other areas OCEANSIDE-INT.#14/NO MITIGATIO NEAR-TERM WITH PROJECT						
USA/ USA/ 08/29/12 PM PEAK												
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	1	1	1	1	1	2	2	1	2	2	0
Lane group	L	T	R	L	T	R	L	T	R	L	T	
Volume (vph)	532	234	269	180	155	176	274	997	445	331	834	
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Arrival type	5	5	5	5	5	5	5	5	5	5	5	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	45	5		
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0	0	0	0	0	0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08				
Timing	G = 17.0	G = 15.0	G =	G =	G = 13.5	G = 38.5	G =	G =				
	Y = 3	Y = 4.5	Y =	Y =	Y = 3	Y = 5	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 99.5						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	578	254	292	196	168	191	298	1084	435	360	907	
Lane group cap.	553	262	495	285	267	495	432	1364	584	432	1337	
v/c ratio	1.05	0.97	0.59	0.69	0.63	0.39	0.69	0.79	0.74	0.83	0.68	
Green ratio	0.16	0.14	0.32	0.16	0.14	0.32	0.13	0.38	0.38	0.13	0.38	
Unif. delay d1	41.8	42.5	28.3	39.4	40.3	26.1	41.6	27.6	26.9	42.5	26.0	
Delay factor k	0.50	0.48	0.18	0.26	0.21	0.11	0.26	0.34	0.30	0.37	0.25	
Incram. delay d2	50.6	47.0	1.9	6.8	4.7	0.5	4.6	3.4	5.2	13.1	1.4	
PF factor	0.872	0.891	0.684	0.872	0.891	0.684	0.904	0.597	0.597	0.904	0.597	
Control delay	87.0	84.9	21.2	41.2	40.6	18.4	42.3	19.8	21.2	51.5	16.9	
Lane group LOS	F	F	C	D	D	B	D	B	C	D	B	
Apprch. delay	69.4			33.2			23.8			26.7		
Approach LOS	E			C			C			C		
Intersec. delay	36.5			Intersection LOS						D		

W/mg

SHORT REPORT

General Information						Site Information					
Analyst	USAI					Intersection	COLLEGE BLVD. @ MARRON RD.				
Agency or Co.	USAI					Area Type	All other areas				
Date Performed	08/29/12					Jurisdiction	OCEANSIDE-INT.#14/MITIGATION				
Time Period	AM PEAK					Analysis Year	NEAR-TERM WITH PROJECT				

Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	1	1	1	1	1	2	2	2	2	2	0
Lane group	L	T	R	L	T	R	L	T	R	L	T	
Volume (vph)	231	43	166	407	90	266	169	798	256	204	1043	
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Arrival type	4	4	4	4	4	5	5	5	5	5	5	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	5	5	0	5	5	0	5	5	0	5		
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0	0	0	0	0	0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Phasing	Excl. Left	WB Only	Thru & RT	04		Excl. Left	SB Only		Thru & RT		08	
Timing	G = 10.0	G = 10.0	G = 10.0	G =		G = 8.0	G = 6.0		G = 32.0		G =	
	Y = 4	Y = 4	Y = 4	Y =		Y = 4	Y = 4		Y = 4		Y =	
Duration of Analysis (hrs) = 0.25							Cycle Length C = 100.0					

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	251	47	180	442	98	289	184	867	278	222	1134	
Lane group cap.	344	186	337	425	447	558	275	1135	1631	619	1490	
v/c ratio	0.73	0.25	0.53	1.04	0.22	0.52	0.67	0.76	0.17	0.36	0.76	
Green ratio	0.10	0.10	0.22	0.24	0.24	0.36	0.08	0.32	0.60	0.18	0.42	
Unif. delay d1	43.7	41.5	34.5	38.0	30.5	25.2	44.7	30.6	8.9	35.9	24.7	
Delay factor k	0.29	0.11	0.14	0.50	0.11	0.12	0.24	0.32	0.11	0.11	0.31	
Increm. delay d2	7.7	0.7	1.7	54.4	0.2	0.9	6.1	3.1	0.0	0.4	2.4	
PF factor	1.000	1.000	1.000	1.000	1.000	0.625	0.942	0.686	0.125	0.854	0.517	
Control delay	51.4	42.3	36.1	92.4	30.7	16.6	48.3	24.1	1.2	31.0	15.1	
Lane group LOS	D	D	D	F	C	B	D	C	A	C	B	
Apprch. delay	44.7			58.7			22.7			17.8		
Approach LOS	D			E			C			B		
Intersec. delay	31.1			Intersection LOS						C		

SHORT REPORT												
General Information						Site Information						
Analyst Agency or Co. Date Performed Time Period						Intersection Area Type Jurisdiction Analysis Year						
USA/ USA/ 08/29/12 PM PEAK						COLLEGE BLVD.@ MARRON RD. All other areas OCEANSIDE-INT.#14/WITH MITIGAT NEAR-TERM WITH PROJECT						
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	1	1	1	1	1	2	2	2	2	2	0
Lane group	L	T	R	L	T	R	L	T	R	L	T	
Volume (vph)	532	234	269	180	155	176	274	997	445	331	834	
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Arrival type	5	5	5	5	5	5	5	5	5	5	5	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	45	5		
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0	0	0	0	0	0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Phasing	Excl. Left	Thru & RT	03		04		Excl. Left	Thru & RT	07		08	
Timing	G = 17.0	G = 15.0	G =		G =		G = 13.5	G = 38.5	G =		G =	
	Y = 3	Y = 4.5	Y =		Y =		Y = 3	Y = 5	Y =		Y =	
Duration of Analysis (hrs) = 0.25						Cycle Length C = 99.5						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	578	254	292	196	168	191	298	1084	435	360	907	
Lane group cap.	553	262	495	285	267	495	432	1364	1018	432	1337	
v/c ratio	1.05	0.97	0.59	0.69	0.63	0.39	0.69	0.79	0.43	0.83	0.68	
Green ratio	0.16	0.14	0.32	0.16	0.14	0.32	0.13	0.38	0.38	0.13	0.38	
Unif. delay d1	41.8	42.5	28.3	39.4	40.3	26.1	41.6	27.6	23.0	42.5	26.0	
Delay factor k	0.50	0.48	0.18	0.26	0.21	0.11	0.26	0.34	0.11	0.37	0.25	
Increm. delay d2	50.6	47.0	1.9	6.8	4.7	0.5	4.6	3.4	0.3	13.1	1.4	
PF factor	0.872	0.891	0.684	0.872	0.891	0.684	0.904	0.597	0.597	0.904	0.597	
Control delay	87.0	84.9	21.2	41.2	40.6	18.4	42.3	19.8	14.0	51.5	16.9	
Lane group LOS	F	F	C	D	D	B	D	B	B	D	B	
Apprch. delay	69.4			33.2			22.1			26.7		
Approach LOS	E			C			C			C		
Intersec. delay	35.8			Intersection LOS							D	

SHORT REPORT												
General Information							Site Information					
Analyst	USAI						Intersection	COLLEGE BLVD. @ CARLSBAD VILL.				
Agency or Co.	USAI						Area Type	All other areas				
Date Performed	06/03/11						Jurisdiction	CARLSBAD-INT.#15				
Time Period	AM PEAK						Analysis Year	EXISTING + OTHER + PROJECT				
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	1	1	1	1	0	1	2	0	1	2	0
Lane group	L	LT	R	L	TR		L	TR		L	TR	
Volume (vph)	428	3	106	1	9	11	74	534	1	4	1660	457
% Heavy veh	1	1	1	1	1	1	1	2	1	1	2	1
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	
Ext. eff. green	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	
Arrival type	4	4	4	4	4		5	5		5	5	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	5	5	0	5	5	0	5	5	0	5	5	200
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0		0	0		0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Phasing	EB Only	EW Perm	03	04	Excl. Left	Thru & RT	07	08				
Timing	G = 17.0	G = 10.0	G =	G =	G = 11.0	G = 67.0	G =	G =				
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 5	Y =	Y =				
Duration of Analysis (hrs) = 0.25							Cycle Length C = 125.0					
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	226	228	112	1	21		78	563		4	2018	
Lane group cap.	393	387	211	141	134		157	1901		157	1858	
v/c ratio	0.58	0.59	0.53	0.01	0.16		0.50	0.30		0.03	1.09	
Green ratio	0.26	0.26	0.14	0.08	0.08		0.09	0.54		0.09	0.54	
Unif. delay d1	39.7	40.7	50.3	52.9	53.6		54.4	16.0		52.1	29.0	
Delay factor k	0.17	0.18	0.13	0.11	0.11		0.11	0.11		0.11	0.50	
Increm. delay d2	2.1	2.4	2.6	0.0	0.5		2.5	0.1		0.1	48.5	
PF factor	1.000	1.000	1.000	1.000	1.000		0.936	0.230		0.936	0.269	
Control delay	41.7	43.1	52.8	53.0	54.1		53.3	3.8		48.8	56.3	
Lane group LOS	D	D	D	D	D		D	A		D	E	
Apprch. delay	44.5			54.1			9.8			56.3		
Approach LOS	D			D			A			E		
Intersec. delay	45.1			Intersection LOS						D		

SHORT REPORT													
General Information							Site Information						
Analyst	USAI						Intersection	COLLEGE BLVD. @ CARLSBAD VILL.					
Agency or Co.	USAI						Area Type	All other areas					
Date Performed	06/03/12						Jurisdiction	CARLSBAD-INT.#15					
Time Period	PM PEAK						Analysis Year	EXISTING + OTHER + PROJECT					
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	1	1	1	1	1	0	1	2	0	1	2	0	
Lane group	L	LT	R	L	TR		L	TR		L	TR		
Volume (vph)	412	10	70	1	3	3	181	1337	1	13	671	454	
% Heavy veh	1	1	1	1	1	1	1	2	1	1	2	1	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0		
Ext. eff. green	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0		
Arrival type	4	4	4	4	4		5	5		5	5		
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0		
Ped/Bike/RTOR Volume	5	5	0	5	5	0	5	5	0	5	5	150	
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0	0	0	0		0	0		0	0		
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0		
Phasing	EB Only	EW Perm	03		04		Excl. Left	Thru & RT	07		08		
Timing	G = 17.0	G = 10.0	G =		G =		G = 14.0	G = 59.0	G =		G =		
	Y = 5	Y = 5	Y =		Y =		Y = 5	Y = 5	Y =		Y =		
Duration of Analysis (hrs) = 0.25							Cycle Length C = 120.0						
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	217	228	74	1	6		191	1408		14	1026		
Lane group cap.	423	419	220	147	142		208	1743		208	1652		
v/c ratio	0.51	0.54	0.34	0.01	0.04		0.92	0.81		0.07	0.62		
Green ratio	0.27	0.27	0.14	0.08	0.08		0.12	0.49		0.12	0.49		
Unif. delay d1	36.8	37.7	46.4	50.4	50.6		52.4	25.7		47.2	22.3		
Delay factor k	0.12	0.14	0.11	0.11	0.11		0.44	0.35		0.11	0.20		
Increm. delay d2	1.1	1.5	0.9	0.0	0.1		40.4	2.9		0.1	0.7		
PF factor	1.000	1.000	1.000	1.000	1.000		0.912	0.355		0.912	0.355		
Control delay	37.8	39.2	47.3	50.5	50.7		88.2	12.1		43.2	8.7		
Lane group LOS	D	D	D	D	D		F	B		D	A		
Apprch. delay	39.8			50.7			21.2			9.1			
Approach LOS	D			D			C			A			
Intersec. delay	20.3			Intersection LOS						C			

SHORT REPORT												
General Information							Site Information					
Analyst	USAI						COLLEGE BLVD. @					
Agency or Co.	USAI						CANNON RD.					
Date Performed	06/03/12						Area Type					
Time Period	AM PEAK						All other areas					
							Jurisdiction					
							CARLSBAD-INT.#16					
							Analysis Year					
							EXISTING + OTHER + PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	2	0	1	2	0	2	2	0	2	2	0
Lane group	L	TR		L	TR		L	TR		L	TR	
Volume (vph)	246	139	58	90	60	38	126	254	210	91	765	731
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Arrival type	5	5		5	5		5	5		5	5	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	5	5	0	5	5	0	5	5	0	5	5	0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0		0	0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08				
Timing	G = 11.0	G = 20.0	G =	G =	G = 12.0	G = 62.0	G =	G =				
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 5	Y =	Y =				
Duration of Analysis (hrs) = 0.25							Cycle Length C = 125.0					
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	259	207		95	103		133	488		96	1574	
Lane group cap.	302	538		156	529		330	1627		330	1616	
v/c ratio	0.86	0.38		0.61	0.19		0.40	0.30		0.29	0.97	
Green ratio	0.09	0.16		0.09	0.16		0.10	0.50		0.10	0.50	
Unif. delay d1	56.2	47.0		54.9	45.5		53.1	18.7		52.5	30.7	
Delay factor k	0.39	0.11		0.19	0.11		0.11	0.11		0.11	0.48	
Increm. delay d2	21.0	0.5		6.7	0.2		0.8	0.1		0.5	16.6	
PF factor	0.936	0.873		0.936	0.873		0.929	0.344		0.929	0.344	
Control delay	73.6	41.5		58.1	39.9		50.2	6.5		49.3	27.1	
Lane group LOS	E	D		E	D		D	A		D	C	
Approch. delay	59.4			48.7			15.9			28.4		
Approach LOS	E			D			B			C		
Intersec. delay	32.0			Intersection LOS						C		

SHORT REPORT												
General Information							Site Information					
Analyst	USAI						COLLEGE BLVD. @					
Agency or Co.	USAI						CANNON RD.					
Date Performed	06/03/12						Area Type					
Time Period	PM PEAK						All other areas					
							Jurisdiction					
							CARLSBAD-INT.#16					
							Analysis Year					
							EXISTING + OTHER + PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	2	0	1	2	0	2	2	0	2	2	0
Lane group	L	TR		L	TR		L	TR		L	TR	
Volume (vph)	730	46	152	90	60	41	76	781	60	27	365	283
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Arrival type	5	5		5	5		5	5		5	5	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	5	5	0	5	5	0	5	5	0	5	5	0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0		0	0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08				
Timing	G = 30.0	G = 18.0	G =	G =	G = 12.0	G = 50.0	G =	G =				
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 5	Y =	Y =				
Duration of Analysis (hrs) = 0.25							Cycle Length C = 130.0					
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	768	208		95	106		80	885		28	682	
Lane group cap.	793	424		408	456		317	1348		317	1264	
v/c ratio	0.97	0.49		0.23	0.23		0.25	0.66		0.09	0.54	
Green ratio	0.23	0.14		0.23	0.14		0.09	0.38		0.09	0.38	
Unif. delay d1	49.5	51.8		40.6	49.9		54.8	32.9		54.0	31.1	
Delay factor k	0.48	0.11		0.11	0.11		0.11	0.23		0.11	0.14	
Increm. delay d2	24.4	0.9		0.3	0.3		0.4	1.2		0.1	0.5	
PF factor	0.800	0.893		0.800	0.893		0.932	0.583		0.932	0.583	
Control delay	64.0	47.1		32.8	44.8		51.5	20.4		50.5	18.6	
Lane group LOS	E	D		C	D		D	C		D	B	
Apprch. delay	60.4			39.1			23.0			19.8		
Approach LOS	E			D			C			B		
Intersec. delay	36.1			Intersection LOS						D		

SHORT REPORT														
General Information						Site Information								
Analyst	USAI					Intersection VISTA WAY@SR78WB OFF-ON RAMP								
Agency or Co.	USAI					Area Type All other areas								
Date Performed	08/29/12					Jurisdiction OCEANSIDE-INT.#17								
Time Period	AM PEAK					Analysis Year NEAR-TERM WITH PROJECT								
Volume and Timing Input														
	EB			WB			NB			SB				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
Num. of Lanes	1	2	1	2	2	0	1	1	1	0	2	0		
Lane group	L	T	R	L	TR		L	LT	R		LTR			
Volume (vph)	85	633	355	218	241	37	736	61	205	43	68	37		
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2		
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95		
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A		
Startup lost time	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0			
Ext. eff. green	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0		2.0			
Arrival type	5	5	5	5	5		3	3	3		3			
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0			
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5	10	0		
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0		12.0			
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N		
Parking/hr														
Bus stops/hr	0	0	0	0	0		0	0	0		0			
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0			
Phasing	Excl. Left	Thru & RT	03		04		SB Only		NB Only		07		08	
Timing	G = 11.0	G = 27.0	G =		G =		G = 9.0		G = 37.0		G =		G =	
	Y = 4	Y = 4	Y =		Y =		Y = 4		Y = 4		Y =		Y =	
Duration of Analysis (hrs) = 0.25						Cycle Length C = 100.0								
Lane Group Capacity, Control Delay, and LOS Determination														
	EB			WB			NB			SB				
Adj. flow rate	89	666	374	229	293		620	219	216		156			
Lane group cap.	177	922	961	344	899		634	645	557		265			
v/c ratio	0.50	0.72	0.39	0.67	0.33		0.98	0.34	0.39		0.59			
Green ratio	0.10	0.26	0.62	0.10	0.26		0.36	0.36	0.36		0.08			
Unif. delay d1	42.6	33.7	9.5	43.4	29.9		31.6	23.3	23.8		44.4			
Delay factor k	0.11	0.28	0.11	0.24	0.11		0.48	0.11	0.11		0.18			
Increm. delay d2	2.3	2.8	0.3	4.8	0.2		30.1	0.3	0.4		3.4			
PF factor	0.926	0.766	0.132	0.926	0.766		1.000	1.000	1.000		1.000			
Control delay	41.8	28.6	1.5	45.0	23.1		61.7	23.6	24.3		47.8			
Lane group LOS	D	C	A	D	C		E	C	C		D			
Apprch. delay	20.7			32.7			46.1			47.8				
Approach LOS	C			C			D			D				
Intersec. delay	33.7			Intersection LOS						C				

SHORT REPORT													
General Information							Site Information						
Analyst	USAI						Intersection						VISTA WAY@SR78WB OFF-
Agency or Co.	USAI						Area Type						ON RAMPs
Date Performed	08/29/12						Jurisdiction						All other areas
Time Period	PM PEAK						Analysis Year						OCEANSIDE-INT.#17
													NEAR-TERM WITH PROJECT
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	1	2	1	2	2	0	1	1	1	0	2	0	
Lane group	L	T	R	L	TR		L	LT	R		LTR		
Volume (vph)	90	553	349	362	541	33	969	62	135	65	83	63	
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0		
Ext. eff. green	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0		2.0		
Arrival type	5	5	5	5	5		3	3	3		3		
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0		
Ped/Bike/RTOR Volume	5		0	5	10	0	5	10	0	5	10	0	
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0		12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0	0	0	0		0	0	0		0		
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0		
Phasing	Excl. Left	WB Only	Thru & RT	04		SB Only	NB Only	07		08			
Timing	G = 10.0	G = 9.0	G = 19.0	G =		G = 10.0	G = 42.0	G =		G =			
	Y = 4	Y = 4	Y = 4	Y =		Y = 4	Y = 4	Y =		Y =			
Duration of Analysis (hrs) = 0.25				Cycle Length C = 110.0									
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	95	582	367	381	604		561	524	142		221		
Lane group cap.	145	580	849	687	987		656	662	577		268		
v/c ratio	0.66	1.00	0.43	0.55	0.61		0.86	0.79	0.25		0.82		
Green ratio	0.08	0.16	0.54	0.20	0.28		0.37	0.37	0.37		0.08		
Unif. delay d1	49.0	46.0	15.4	39.6	34.3		31.8	30.7	23.8		49.7		
Delay factor k	0.23	0.50	0.11	0.15	0.20		0.39	0.34	0.11		0.36		
Increm. delay d2	10.2	38.2	0.4	1.0	1.1		10.8	6.5	0.2		18.6		
PF factor	0.941	0.870	0.229	0.833	0.738		1.000	1.000	1.000		1.000		
Control delay	56.3	78.2	3.9	34.0	26.4		42.5	37.2	24.1		68.3		
Lane group LOS	E	E	A	C	C		D	D	C		E		
Apprch. delay	50.1			29.4			38.1			68.3			
Approach LOS	D			C			D			E			
Intersec. delay	41.2			Intersection LOS						D			

SHORT REPORT												
General Information							Site Information					
Analyst	USAI						PLAZA BLVD.@SR-78EB					
Agency or Co.	USAI						OFF-ON RAM					
Date Performed	08/29/12						Area Type All other areas					
Time Period	AM PEAK						Jurisdiction OCEANSIDE-INT.#18					
							Analysis Year NEAR-TERM WITH PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	2	0	1	2	0	1	1	1	1	1	0
Lane group	L	TR		L	TR		L	LT	R	L	TR	
Volume (vph)	924	214	33	24	256	36	34	3	7	65	11	36
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Arrival type	4	4		4	4		3	3	3	3	3	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5	10	0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0	0	0	0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Phasing	Excl. Left	EB Only	Thru & RT	04		SB Only	NB Only		07		08	
Timing	G = 5.0	G = 39.0	G = 21.0	G =		G = 10.0	G = 5.0		G =		G =	
	Y = 4	Y = 4	Y = 4	Y =		Y = 4	Y = 4		Y =		Y =	
Duration of Analysis (hrs) = 0.25							Cycle Length C = 100.0					
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	973	260		25	307		36	3	7	68	50	
Lane group cap.	1609	2180		71	694		67	75	57	157	143	
v/c ratio	0.60	0.12		0.35	0.44		0.54	0.04	0.12	0.43	0.35	
Green ratio	0.47	0.63		0.04	0.20		0.04	0.04	0.04	0.09	0.09	
Unif. delay d1	19.6	7.4		46.7	35.1		47.1	46.2	46.3	43.1	42.8	
Delay factor k	0.19	0.11		0.11	0.11		0.14	0.11	0.11	0.11	0.11	
Increm. delay d2	0.7	0.0		3.0	0.5		8.3	0.2	1.0	1.9	1.5	
PF factor	0.810	0.497		1.000	1.000		1.000	1.000	1.000	1.000	1.000	
Control delay	16.5	3.7		49.7	35.6		55.4	46.4	47.3	45.0	44.2	
Lane group LOS	B	A		D	D		E	D	D	D	D	
Apprch. delay	13.8			36.6			53.6			44.7		
Approach LOS	B			D			D			D		
Intersec. delay	21.4			Intersection LOS						C		

SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection PLAZA BLVD.@SR-78EB						
Agency or Co.	USAI					OFF-ON RAM						
Date Performed	08/29/12					Area Type All other areas						
Time Period	PM PEAK					Jurisdiction OCEANSIDE-INT.#18						
						Analysis Year NEAR-TERM WITH PROJECT						
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	2	0	1	2	0	1	1	1	1	1	0
Lane group	L	TR		L	TR		L	LT	R	L	TR	
Volume (vph)	950	329	60	96	365	59	156	44	54	123	38	52
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Arrival type	5	5		5	5		3	3	3	5	3	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5	10	0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0	0	0	0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Phasing	Excl. Left	EB Only	Thru & RT	04		SB Only	NB Only		07		08	
Timing	G = 14.0	G = 26.0	G = 23.0	G =		G = 15.0	G = 12.0		G =		G =	
	Y = 4	Y = 4	Y = 4	Y =		Y = 4	Y = 4		Y =		Y =	
Duration of Analysis (hrs) = 0.25						Cycle Length C = 110.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	1000	409		101	446		90	120	57	129	95	
Lane group cap.	1336	1629		209	692		174	179	151	223	212	
v/c ratio	0.75	0.25		0.48	0.64		0.52	0.67	0.38	0.58	0.45	
Green ratio	0.39	0.47		0.12	0.20		0.10	0.10	0.10	0.13	0.13	
Unif. delay d1	28.8	17.4		45.4	40.4		47.0	47.8	46.3	45.2	44.4	
Delay factor k	0.30	0.11		0.11	0.22		0.12	0.24	0.11	0.17	0.11	
Increm. delay d2	2.4	0.1		1.8	2.1		2.7	9.3	1.6	3.7	1.5	
PF factor	0.572	0.402		0.911	0.833		1.000	1.000	1.000	0.903	1.000	
Control delay	18.9	7.1		43.1	35.7		49.7	57.1	47.9	44.5	45.9	
Lane group LOS	B	A		D	D		D	E	D	D	D	
Apprch. delay	15.5			37.1			52.6			45.1		
Approach LOS	B			D			D			D		
Intersec. delay	27.1			Intersection LOS						C		

SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection LAKE BLVD.@THUNDER DR.						
Agency or Co.	USAI					Area Type All other areas						
Date Performed	08/29/12					Jurisdiction OCEANSIDE-INT.#19						
Time Period	AM PEAK					Analysis Year NEAR-TERM WITH PROJECT						
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	2	0	1	2	0	1	1	0	1	1	0
Lane group	L	TR		L	TR		L	TR		L	TR	
Volume (vph)	141	284	2	2	532	84	0	2	2	53	2	192
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	3.0	3.0		3.0	3.0		2.0	3.0		3.0	3.0	
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Arrival type	3	3		3	3		3	3		3	3	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5		0	5		0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0		0	0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08				
Timing	G = 13.0	G = 42.0	G =	G =	G = 8.0	G = 19.1	G =	G =				
	Y = 4.2	Y = 5.3	Y =	Y =	Y = 4.2	Y = 4.2	Y =	Y =				
Duration of Analysis (hrs) = 0.25			Cycle Length C = 100.0									
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	153	311		2	669		0	4		58	211	
Lane group cap.	212	1452		212	1418		142	312		124	287	
v/c ratio	0.72	0.21		0.01	0.47		0.00	0.01		0.47	0.74	
Green ratio	0.12	0.41		0.12	0.41		0.08	0.18		0.07	0.18	
Unif. delay d1	42.4	19.1		38.8	21.6		42.3	33.6		44.7	38.7	
Delay factor k	0.28	0.11		0.11	0.11		0.11	0.11		0.11	0.29	
Increm. delay d2	11.4	0.1		0.0	0.2		0.0	0.0		2.8	9.5	
PF factor	1.000	1.000		1.000	1.000		1.000	1.000		1.000	1.000	
Control delay	53.8	19.2		38.8	21.8		42.3	33.6		47.5	48.2	
Lane group LOS	D	B		D	C		D	C		D	D	
Apprch. delay	30.6			21.9			33.6			48.0		
Approach LOS	C			C			C			D		
Intersec. delay	29.8			Intersection LOS						C		

SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection LAKE BLVD.@THUNDER DR.						
Agency or Co.	USAI					Area Type All other areas						
Date Performed	08/29/12					Jurisdiction OCEANSIDE-INT.#19						
Time Period	PM PEAK					Analysis Year NEAR-TERM WITH PROJECT						
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	2	0	1	2	0	1	1	0	1	1	0
Lane group	L	TR		L	TR		L	TR		L	TR	
Volume (vph)	254	569	5	5	335	99	1	2	6	124	3	137
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Arrival type	3	3		3	3		3	3		3	3	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5		0	5		0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0		0	0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Phasing	Excl. Left	EW Perm	Thru & RT	04			Excl. Left	Thru & RT	07			08
Timing	G = 4.0	G = 15.0	G = 40.0	G =			G = 13.0	G = 14.8	G =			G =
	Y = 4.2	Y = 5.3	Y = 5.3	Y =			Y = 4.2	Y =	Y =			Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 110.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	276	623		5	472		1	9		135	152	
Lane group cap.	357	1909		115	1204		193	206		193	199	
v/c ratio	0.77	0.33		0.04	0.39		0.01	0.04		0.70	0.76	
Green ratio	0.20	0.54		0.20	0.35		0.11	0.13		0.11	0.13	
Unif. delay d1	41.5	14.2		35.7	26.6		43.7	42.3		47.3	46.5	
Delay factor k	0.32	0.11		0.11	0.11		0.11	0.11		0.27	0.32	
Increm. delay d2	10.1	0.1		0.2	0.2		0.0	0.1		10.7	16.1	
PF factor	1.000	1.000		1.000	1.000		1.000	1.000		1.000	1.000	
Control delay	51.6	14.3		35.9	26.8		43.7	42.4		57.9	62.6	
Lane group LOS	D	B		D	C		D	D		E	E	
Apprch. delay	25.7			26.9			42.5			60.4		
Approach LOS	C			C			D			E		
Intersec. delay	32.1			Intersection LOS						C		

SHORT REPORT													
General Information							Site Information						
Analyst	USAI						Intersection	COLLEGE BLVD.@					
Agency or Co.	USAI						Area Type	WARING ROAD					
Date Performed	08/28/12						Jurisdiction	All other areas					
Time Period	AM PEAK						Analysis Year	OCEANSIDE					
							NEAR-TERM PLUS PROJECT						
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	0	1	1	1	1	0	2	2	1	1	2	1	
Lane group		LT	R	L	TR		L	T	R	L	T	R	
Volume (vph)	25	32	182	107	47	43	446	741	195	71	1281	138	
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2	
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time		2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	
Ext. eff. green		2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	
Arrival type		4	4	4	4		5	5	5	5	5	5	
Unit Extension		3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	5	5	90	5	5	0	5		0	5	5	0	
Lane Width		12.0	12.0	12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr		0	0	0	0		0	0	0	0	0	0	
Unit Extension		3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	
Phasing	EB Only	WB Only	03		04		Excl. Left	Thru & RT		07		08	
Timing	G = 14.0	G = 7.0	G =		G =		G = 15.1	G = 44.0		G =		G =	
	Y = 4.6	Y = 4	Y =		Y =		Y = 4.6	Y = 6.7		Y =		Y =	
Duration of Analysis (hrs) = 0.25							Cycle Length C = 100.0						
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate		62	100	116	98		485	805	212	77	1392	150	
Lane group cap.		255	215	124	118		519	1561	697	267	1561	684	
v/c ratio		0.24	0.47	0.94	0.83		0.93	0.52	0.30	0.29	0.89	0.22	
Green ratio		0.14	0.14	0.07	0.07		0.15	0.44	0.44	0.15	0.44	0.44	
Unif. delay d1		38.3	39.6	46.3	45.9		42.0	20.3	18.1	37.7	25.8	17.4	
Delay factor k		0.11	0.11	0.45	0.37		0.45	0.12	0.11	0.11	0.42	0.11	
Increm. delay d2		0.5	1.6	61.0	37.0		24.3	0.3	0.2	0.6	6.9	0.2	
PF factor		1.000	1.000	1.000	1.000		0.881	0.476	0.476	0.881	0.476	0.476	
Control delay		38.8	41.1	107.3	82.9		61.3	10.0	8.9	33.8	19.2	8.4	
Lane group LOS		D	D	F	F		E	A	A	C	B	A	
Apprch. delay		40.2			96.1		26.4			18.9			
Approach LOS		D			F		C			B			
Intersec. delay		27.8			Intersection LOS						C		

SHORT REPORT												
General Information							Site Information					
Analyst	USAI						COLLEGE BLVD.@					
Agency or Co.	USAI						WARING RD.					
Date Performed	08/28/12						All other areas					
Time Period	PM PEAK						OCEANSIDE-INT#20					
							NEAR-TERM WITH PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	1	1	1	1	0	2	2	1	1	2	1
Lane group		LT	R	L	TR		L	T	R	L	T	R
Volume (vph)	103	54	397	129	51	116	382	1375	164	68	1080	78
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time		2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Ext. eff. green		2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Arrival type		4	5	4	4		5	5	5	5	5	5
Unit Extension		3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Ped/Bike/RTOR Volume	5	5	190	5	5	0	5	5	65	5	5	0
Lane Width		12.0	12.0	12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr		0	0	0	0		0	0	0	0	0	0
Unit Extension		3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Phasing	EB Only	WB Only	03		04		Excl. Left	NB Only	Thru & RT		08	
Timing	G = 14.0	G = 12.0	G =		G =		G = 9.0	G = 10.1	G = 40.0		G =	
	Y = 4.6	Y = 4	Y =		Y =		Y = 4.6	Y = 5	Y = 6.7		Y =	
Duration of Analysis (hrs) = 0.25							Cycle Length C = 110.0					
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate		171	225	140	181		415	1495	108	74	1174	85
Lane group cap.		228	195	191	177		741	1777	771	145	1290	565
v/c ratio		0.75	1.15	0.73	1.02		0.56	0.84	0.14	0.51	0.91	0.15
Green ratio		0.13	0.13	0.11	0.11		0.22	0.50	0.50	0.08	0.36	0.36
Unif. delay d1		46.3	48.0	47.4	49.0		38.5	23.7	14.7	48.4	33.3	23.6
Delay factor k		0.31	0.50	0.29	0.50		0.16	0.38	0.11	0.12	0.43	0.11
Increm. delay d2		13.0	112.0	13.6	73.7		1.0	3.8	0.1	3.0	9.8	0.1
PF factor		1.000	0.903	1.000	1.000		0.817	0.331	0.331	0.941	0.619	0.619
Control delay		59.3	155.4	61.0	122.7		32.4	11.7	5.0	48.5	30.4	14.7
Lane group LOS		E	F	E	F		C	B	A	D	C	B
Apprch. delay	113.9			95.8			15.6			30.4		
Approach LOS	F			F			B			C		
Intersec. delay	36.3			Intersection LOS						D		

W/MIT

SHORT REPORT												
General Information							Site Information					
Analyst	USAI						COLLEGE BLVD.@ WARING ROAD					
Agency or Co.	USAI						Area Type All other areas					
Date Performed	08/28/12						Jurisdiction OCEANSIDE/MITIGATION					
Time Period	AM PEAK						Analysis Year NEAR-TERM PLUS PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	1	1	1	1	0	2	3	0	1	2	1
Lane group		LT	R	L	TR		L	TR		L	T	R
Volume (vph)	25	32	182	107	47	43	446	741	195	71	1281	138
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time		2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	2.0
Ext. eff. green		2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	2.0
Arrival type		4	4	4	4		5	5		5	5	5
Unit Extension		3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Ped/Bike/RTOR Volume	5	5	90	5	5	0	5		0	5	5	0
Lane Width		12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr		0	0	0	0		0	0		0	0	0
Unit Extension		3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Phasing	EB Only	WB Only	03		04		Excl. Left		Thru & RT		07	08
Timing	G = 14.0	G = 7.0	G =		G =		G = 15.1		G = 44.0		G =	
	Y = 4.6	Y = 4	Y =		Y =		Y = 4.6		Y = 6.7		Y =	
Duration of Analysis (hrs) = 0.25						Cycle Length C = 100.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate		62	100	116	98		485	1017		77	1392	150
Lane group cap.		255	215	124	118		519	2163		267	1561	684
v/c ratio		0.24	0.47	0.94	0.83		0.93	0.47		0.29	0.89	0.22
Green ratio		0.14	0.14	0.07	0.07		0.15	0.44		0.15	0.44	0.44
Unif. delay d1		38.3	39.6	46.3	45.9		42.0	19.8		37.7	25.8	17.4
Delay factor k		0.11	0.11	0.45	0.37		0.45	0.11		0.11	0.42	0.11
Increm. delay d2		0.5	1.6	61.0	37.0		24.3	0.2		0.6	6.9	0.2
PF factor		1.000	1.000	1.000	1.000		0.881	0.476		0.881	0.476	0.476
Control delay		38.8	41.1	107.3	82.9		61.3	9.6		33.8	19.2	8.4
Lane group LOS		D	D	F	F		E	A		C	B	A
Apprch. delay		40.2			96.1		26.3			18.9		
Approach LOS		D			F		C			B		
Intersec. delay		27.8			Intersection LOS						C	

W/MIT.

SHORT REPORT												
General Information						Site Information						
Analyst USAI Agency or Co. USAI Date Performed 08/28/12 Time Period PM PEAK						Intersection COLLEGE BLVD.@ WARING RD. Area Type All other areas Jurisdiction OCEANSIDE-INT#20/MITIGATION Analysis Year NEAR-TERM WITH PROJECT						
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	1	1	1	1	0	2	3	1	1	2	1
Lane group		LT	R	L	TR		L	TR	R	L	T	R
Volume (vph)	103	54	397	129	51	116	382	1375	164	68	1080	78
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time		2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Ext. eff. green		2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Arrival type		4	5	4	4		5	5	5	5	5	5
Unit Extension		3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Ped/Bike/RTOR Volume	5	5	190	5	5	0	5	5	65	5	5	0
Lane Width		12.0	12.0	12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr		0	0	0	0		0	0	0	0	0	0
Unit Extension		3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Phasing	EB Only	WB Only	03		04		Excl. Left	NB Only	Thru & RT		08	
Timing	G = 14.0	G = 12.0	G =		G =		G = 9.0	G = 10.1	G = 40.0		G =	
	Y = 4.6	Y = 4	Y =		Y =		Y = 4.6	Y = 5	Y = 6.7		Y =	
Duration of Analysis (hrs) = 0.25						Cycle Length C = 110.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate		171	225	140	181		415	1495	108	74	1174	85
Lane group cap.		228	195	191	177		741	2542	771	145	1290	565
v/c ratio		0.75	1.15	0.73	1.02		0.56	0.59	0.14	0.51	0.91	0.15
Green ratio		0.13	0.13	0.11	0.11		0.22	0.50	0.50	0.08	0.36	0.36
Unif. delay d1		46.3	48.0	47.4	49.0		38.5	19.4	14.7	48.4	33.3	23.6
Delay factor k		0.31	0.50	0.29	0.50		0.16	0.18	0.11	0.12	0.43	0.11
Increm. delay d2		13.0	112.0	13.6	73.7		1.0	0.4	0.1	3.0	9.8	0.1
PF factor		1.000	0.903	1.000	1.000		0.817	0.331	0.331	0.941	0.619	0.619
Control delay		59.3	155.4	61.0	122.7		32.4	6.8	5.0	48.5	30.4	14.7
Lane group LOS		E	F	E	F		C	A	A	D	C	B
Apprch. delay	113.9			95.8			12.0			30.4		
Approach LOS	F			F			B			C		
Intersec. delay	34.5			Intersection LOS						C		

SHORT REPORT												
General Information							Site Information					
Analyst	USAI						Intersection					
Agency or Co.	USAI						MARRON RD.@QUARRY CREEK CTR.					
Date Performed	06/03/12						Area Type					
Time Period	AM PEAK						All other areas					
							Jurisdiction					
							OCEANSIDE					
							Analysis Year					
							NEAR-TERM/WITH PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	2	0	2	2	1	0	1	1	1	1	1
Lane group	L	TR		L	T	R		LTR	R	L	LT	R
Volume (vph)	10	186	7	173	75	157	2	5	84	145	5	4
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0
Ext. eff. green	2.0	2.0		2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0
Arrival type	3	3		3	3	3		3	3	3	3	3
Unit Extension	3.0	3.0		3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5	10	0
Lane Width	12.0	12.0		12.0	12.0	12.0		12.0	12.0	12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0	0		0	0	0	0	0
Unit Extension	3.0	3.0		3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0
Phasing	Excl. Left	Thru & RT	03	04	NB Only	SB Only	07	08				
Timing	G = 10.0	G = 20.0	G =	G =	G = 10.0	G = 10.0	G =	G =				
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 5	Y =	Y =				
Duration of Analysis (hrs) = 0.25							Cycle Length C = 70.0					
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	11	210		188	82	171		7	91	158	5	4
Lane group cap.	491	1007		491	1013	663		262	212	248	266	218
v/c ratio	0.02	0.21		0.38	0.08	0.26		0.03	0.43	0.64	0.02	0.02
Green ratio	0.14	0.29		0.14	0.29	0.43		0.14	0.14	0.14	0.14	0.14
Unif. delay d1	25.8	19.0		27.2	18.3	12.8		25.8	27.4	28.3	25.8	25.8
Delay factor k	0.11	0.11		0.11	0.11	0.11		0.11	0.11	0.22	0.11	0.11
Increm. delay d2	0.0	0.1		0.5	0.0	0.2		0.0	1.4	5.4	0.0	0.0
PF factor	1.000	1.000		1.000	1.000	1.000		1.000	1.000	1.000	1.000	1.000
Control delay	25.8	19.1		27.7	18.3	13.1		25.9	28.8	33.6	25.8	25.8
Lane group LOS	C	B		C	B	B		C	C	C	C	C
Apprch. delay	19.4			20.3			28.6			33.2		
Approach LOS	B			C			C			C		
Intersec. delay	23.3			Intersection LOS						C		

SHORT REPORT												
General Information							Site Information					
Analyst	USAI						Intersection					
Agency or Co.	USAI						MARRON RD.@QUARRY CREEK CTR.					
Date Performed	06/03/12						Area Type					
Time Period	PM PEAK						All other areas					
							Jurisdiction					
							OCEANSIDE					
							Analysis Year					
							NEAR-TERM/WITH PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	2	0	2	2	1	0	1	1	1	1	1
Lane group	L	TR		L	T	R		LTR	R	L	LT	R
Volume (vph)	6	146	4	350	221	319	8	5	290	509	5	11
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0
Ext. eff. green	2.0	2.0		2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0
Arrival type	3	3		3	3	3		3	3	3	3	5
Unit Extension	3.0	3.0		3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	25	5	10	0
Lane Width	12.0	12.0		12.0	12.0	12.0		12.0	12.0	12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0	0		0	0	0	0	0
Unit Extension	3.0	3.0		3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0
Phasing	Excl. Left	Thru & RT	03	04	NB Only	SB Only	07	08				
Timing	G = 15.0	G = 15.0	G =	G =	G = 18.0	G = 32.0	G =	G =				
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 5	Y =	Y =				
Duration of Analysis (hrs) = 0.25							Cycle Length C = 100.0					
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	7	163		380	240	347		155	147	332	226	12
Lane group cap.	516	530		516	532	725		275	270	563	565	495
v/c ratio	0.01	0.31		0.74	0.45	0.48		0.56	0.54	0.59	0.40	0.02
Green ratio	0.15	0.15		0.15	0.15	0.47		0.18	0.18	0.32	0.32	0.32
Unif. delay d1	36.2	37.9		40.6	38.7	18.1		37.4	37.3	28.5	26.5	23.3
Delay factor k	0.11	0.11		0.29	0.11	0.11		0.16	0.14	0.18	0.11	0.11
Increm. delay d2	0.0	0.3		5.5	0.6	0.5		2.7	2.3	1.6	0.5	0.0
PF factor	1.000	1.000		1.000	1.000	1.000		1.000	1.000	1.000	1.000	0.686
Control delay	36.2	38.2		46.1	39.4	18.6		40.1	39.6	30.1	27.0	16.0
Lane group LOS	D	D		D	D	B		D	D	C	C	B
Apprch. delay	38.1			34.6			39.8			28.6		
Approach LOS	D			C			D			C		
Intersec. delay	34.0			Intersection LOS						C		

ROUNDBABOUTS - UNSIGNALIZED INTERSECTIONS WORKSHEET					
General Information			Site Information		
Analyst	USAI		Intersection	MARRON RD./STREET B	
Agency/Co.	USAI		Jurisdiction	CARLSBAD	
Date Performed	6/7/2012		Analysis Year	NEAR TERM PLUS PROJECT	
Time Period	AM PEAK HOUR				
Project Description QC					
Volume Adjustments					
		EB	WB	NB	SB
LT Traffic	Volume, veh/h	30	0	0	149
	PHF	0.90	0.90	0.90	0.90
	Flow rate, veh/h	33	0	0	165
TH Traffic	Volume, veh/h	36	12	0	0
	PHF	0.90	0.90	0.90	0.90
	Flow rate, veh/h	40	13	0	0
RT Traffic	Volume, veh/h	0	52	0	10
	PHF	0.90	0.90	0.90	0.90
	Flow rate, veh/h	0	57	0	11
Approach Flow Computation					
Approach Flow (veh/h)			Va (veh/h)		
V _{ae}			73		
V _{aw}			70		
V _{an}			0		
V _{as}			176		
Circulating Flow Computation					
Approach Flow (veh/h)			Vc (veh/h)		
V _{ce}			165		
V _{cw}			33		
V _{cn}			238		
V _{cs}			13		
Capacity Computation					
		EB	WB	NB	SB
Capacity	Upper bound	1217	1349	1149	1370
	Lower bound	1008	1129	947	1148
v/c Ratio	Upper bound	0.06	0.05	0.00	0.13
	Lower bound	0.07 ✓	0.06 ✓	0.00 ✓	0.15 ✓

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ALL v/c @ LOS A

ROUNDBABOUTS - UNSIGNALIZED INTERSECTIONS WORKSHEET					
General Information			Site Information		
Analyst	USAI		Intersection	MARRON RD./STREET B	
Agency/Co.	USAI		Jurisdiction	CARLSBAD	
Date Performed	6/7/2012		Analysis Year	NEAR-TERM PLUS	
Time Period	PM PEAK HOUR		PROJECT		
Project Description QC					
Volume Adjustments					
		EB	WB	NB	SB
LT Traffic	Volume, veh/h	15	0	0	83
	PHF	0.90	0.90	0.90	0.90
	Flow rate, veh/h	16	0	0	92
TH Traffic	Volume, veh/h	18	42	0	0
	PHF	0.90	0.90	0.90	0.90
	Flow rate, veh/h	20	46	0	0
RT Traffic	Volume, veh/h	0	164	0	34
	PHF	0.90	0.90	0.90	0.90
	Flow rate, veh/h	0	182	0	37
Approach Flow Computation					
Approach Flow (veh/h)			Va (veh/h)		
V _{ae}			36		
V _{aw}			228		
V _{an}			0		
V _{as}			129		
Circulating Flow Computation					
Approach Flow (veh/h)			Vc (veh/h)		
V _{ce}			92		
V _{cw}			16		
V _{cn}			128		
V _{cs}			46		
Capacity Computation					
		EB	WB	NB	SB
Capacity	Upper bound	1288	1367	1252	1335
	Lower bound	1073	1145	1041	1116
v/c Ratio	Upper bound	0.03	0.17	0.00	0.10
	Lower bound	0.03	0.20	0.00	0.12

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ALL V/C @ LOS A

FAIR-SHARE %

EL CAMINO REAL (VISTA WAY TO SR-78 WB RAMP)

NEAR-TERM + PROJECT

I. TOTAL VOLUME (NEAR-TERM + PROJECT)

<u>NEAR-TERM WITH PROJECT</u>	57,400 ADT
<u>NEAR-TERM WITHOUT PROJECT</u>	- 57,300 ADT
<u>PROJECT ONLY INCREASE</u>	= 100 ADT

II. EXISTING VOLUME

<u>EXISTING</u>	<u>53,859 ADT</u>
-----------------	-------------------

III. TOTAL INCREASE

<u>NEAR-TERM WITH PROJECT</u>	57,400 ADT
<u>EXISTING</u>	- 53,859 ADT
<u>TOTAL INCREASE</u>	= 3,541 ADT

IV. PROJECT PERCENTAGE OF TOTAL INCREASE

<u>PROJECT ONLY</u>	=	<u>100 ADT</u>	=	<u>2.8%</u>
<u>TOTAL INCREASE</u>		<u>3,541 ADT</u>		

FAIR-SHARE %COLLEGE BLVD. (VISTAWAY TO PLAZA DR.)NEAR-TERM + PROJECTI. TOTAL VOLUME (NEAR-TERM + PROJECT)

$$\begin{array}{r}
 \text{NEAR-TERM WITH PROJECT} \quad 51,000 \text{ ADT} \\
 \text{NEAR-TERM, WITHOUT PROJECT} \quad - 48,200 \text{ ADT} \\
 \hline
 \text{PROJECT ONLY INCREASE} = \quad 2,800 \text{ ADT}
 \end{array}$$

II. EXISTING VOLUME

$$\begin{array}{r}
 \text{EXISTING} \quad 44,884 \text{ ADT}
 \end{array}$$

III. TOTAL INCREASE

$$\begin{array}{r}
 \text{NEAR-TERM WITH PROJECT} \quad 51,000 \text{ ADT} \\
 \text{EXISTING} \quad - 44,884 \text{ ADT} \\
 \hline
 \text{TOTAL INCREASE} = \quad 6,116 \text{ ADT}
 \end{array}$$

IV. PROJECT PERCENTAGE OF TOTAL INCREASE

$$\frac{\text{PROJECT ONLY}}{\text{TOTAL INCREASE}} = \frac{2,800 \text{ ADT}}{6,116 \text{ ADT}} = \underline{\underline{45.8 \%}}$$

FAIR-SHARE %VISTA WAY (COLLEGE BLVD. TO SR-78 WB RMP)NEAR-TERM + PROJECTI. TOTAL VOLUME (NEAR-TERM + PROJECT)

$$\begin{array}{r}
 \text{NEAR-TERM WITH PROJECT} \\
 \text{NEAR-TERM WITHOUT PROJECT} \\
 \hline
 \text{PROJECT ONLY INCREASE} =
 \end{array}
 \begin{array}{r}
 32,700 \text{ ADT} \\
 -31,500 \text{ ADT} \\
 \hline
 1,200 \text{ ADT}
 \end{array}$$

II. EXISTING VOLUME

$$\begin{array}{r}
 \text{EXISTING} \\
 \hline
 28,000 \text{ ADT}
 \end{array}$$

III. TOTAL INCREASE

$$\begin{array}{r}
 \text{NEAR-TERM WITH PROJECT} \\
 \text{EXISTING} \\
 \hline
 \text{TOTAL INCREASE} =
 \end{array}
 \begin{array}{r}
 32,700 \text{ ADT} \\
 -28,000 \text{ ADT} \\
 \hline
 4,700 \text{ ADT}
 \end{array}$$

IV. PROJECT PERCENTAGE OF TOTAL INCREASE

$$\frac{\text{PROJECT ONLY}}{\text{TOTAL INCREASE}} = \frac{1,200 \text{ ADT}}{4,700 \text{ ADT}} = \underline{\underline{25.5\%}}$$

FAIR-SHARE %LAKE BLVD. (THUNDER DR. TO SUNDOWN LN.)NEAR-TERM + PROJECTI. TOTAL VOLUME (NEAR-TERM + PROJECT)NEAR-TERM WITH PROJECTNEAR-TERM WITHOUT PROJECTPROJECT ONLY INCREASE =

$$\begin{array}{r} 15,500 \text{ ADT} \\ - 15,300 \text{ ADT} \\ \hline 200 \text{ ADT} \end{array}$$

II. EXISTING VOLUMEEXISTING14,800 ADTIII. TOTAL INCREASENEAR-TERM WITH PROJECTEXISTINGTOTAL INCREASE =

$$\begin{array}{r} 15,500 \text{ ADT} \\ - 14,800 \text{ ADT} \\ \hline 700 \text{ ADT} \end{array}$$

IV. PROJECT PERCENTAGE OF TOTAL INCREASE

$$\frac{\text{PROJECT ONLY}}{\text{TOTAL INCREASE}} = \frac{200 \text{ ADT}}{700 \text{ ADT}} = \underline{\underline{28.6\%}}$$

ARTERIAL ANALYSIS WORKSHEETS (32 PGS)

URBAN STREET WORKSHEET #1								
General Information				Site Information				
Analyst USAI				Urban Street EL CAMINO REAL				
Agency/Co. USAI				Direction of Travel North-bound				
Date Performed 8/23/2012				Jurisdiction OCEANSIDE				
Time Period PM PEAK HOUR				Analysis Year NEAR-TERM NO PROJECT				
Project Description: QUARRY CREEK								
Input Parameters								
Analysis Period(h) T = 0.25	Segments							
	1	2	3	4	5	6	7	8
Cycle length, C (s)	125.0	100.0	133.6					
Eff. green to cycle ratio, g/C	0.426	0.559	0.470					
v/c ratio for lane group, X	0.782	0.776	1.118					
Cap of lane group, c (veh/h)	2159	2836	2293					
Pct Veh on Grn., PVG								
Arrival type, AT	5	5	5					
Unit Extension, UE (sec)	3.0	3.0	3.0					
Length of segment, L (mi)	0.08	0.07	0.06					
Initial Queue, Qb (veh)	0	0	0					
Urban street class, SC	1	1	1					
Free-flow speed, FSS (mi/h)	50	50	50					
Running Time, TR (s)	8.4	7.3	6.3					
Other delay, (s)	0.0	0.0	0.0					
Delay Computation								
Uniform delay, d1 (s)	30.9	17.2	35.4	5.4	5.4	5.4	5.4	5.4
Incremental delay adj, k	0.33	0.33	0.50	0.50	0.50	0.50	0.50	0.50
Upstream filtering adj factor, I	1.000	0.529	0.538					
Incremental delay, d2 (s)	1.9	0.8	56.7	0.4				
Initial queue delay, d3 (s)	0	0	0					
Progression adj factor, PF	0.506	0.155	0.408	0.256	0.256	0.256	0.256	0.256
Control delay, d (s)	17.6	3.4	71.2					
Segment LOS Determination								
Travel time, ST (s)	26.0	10.8	77.5					
Travel speed, SA (mi/h)	11.1	23.4	2.8					
Segment LOS	F	D	F					
Urban Street LOS Determination								
Total travel time (s)	114.2							
Total length (mi)	0.21							
Total travel speed, SA (mi/h)	6.6							
Total urban street LOS	F							

NO CHANGE WITH PROJECT

URBAN STREET WORKSHEET #1								
General Information				Site Information				
Analyst <i>USAI</i>				Urban Street <i>EL CAMINO REAL</i>				
Agency/Co. <i>USAI</i>				Direction of Travel <i>North-bound</i>				
Date Performed <i>8/23/2012</i>				Jurisdiction <i>OCEANSIDE</i>				
Time Period <i>PM PEAK HOUR</i>				Analysis Year <i>NEAR-TERM WITH PROJECT</i>				
Project Description: <i>QUARRY CREEK</i>								
Input Parameters								
Analysis Period(h) T = 0.25	Segments							
	1	2	3	4	5	6	7	8
Cycle length, C (s)	125.0	100.0	133.6					
Eff. green to cycle ratio, g/C	0.426	0.559	0.470					
v/c ratio for lane group, X	0.782	0.776	1.120					
Cap of lane group, c (veh/h)	2159	2836	2293					
Pct Veh on Grn., PVG								
Arrival type, AT	5	5	5					
Unit Extension, UE (sec)	3.0	3.0	3.0					
Length of segment, L (mi)	0.08	0.07	0.06					
Initial Queue, Qb (veh)	0	0	0					
Urban street class, SC	1	1	1					
Free-flow speed, FSS (mi/h)	50	50	50					
Running Time, TR (s)	8.4	7.3	6.3					
Other delay, (s)	0.0	0.0	0.0					
Delay Computation								
Uniform delay, d1 (s)	30.9	17.2	35.4	5.4	5.4	5.4	5.4	5.4
Incremental delay adj, k	0.33	0.33	0.50	0.50	0.50	0.50	0.50	0.50
Upstream filtering adj factor, I	1.000	0.529	0.538					
Incremental delay, d2 (s)	1.9	0.8	57.7	0.4				
Initial queue delay, d3 (s)	0	0	0					
Progression adj factor, PF	0.506	0.155	0.408	0.256	0.256	0.256	0.256	0.256
Control delay, d (s)	17.6	3.4	72.1					
Segment LOS Determination								
Travel time, ST (s)	26.0	10.8	78.4					
Travel speed, SA (mi/h)	11.1	23.4	2.8					
Segment LOS	F	D	F					
Urban Street LOS Determination								
Total travel time (s)	115.1							
Total length (mi)	0.21							
Total travel speed, SA (mi/h)	6.6							
Total urban street LOS	F							

URBAN STREET WORKSHEET #1								
General Information				Site Information				
Analyst USAI				Urban Street EL CAMINO REAL				
Agency/Co. USAI				Direction of Travel South-bound				
Date Performed 8/23/2012				Jurisdiction OCEANSIDE				
Time Period PM PEAK HOUR				Analysis Year NEAR-TERM NO PROJECT				
Project Description: QUARRY CREEK								
Input Parameters								
Analysis Period(h) T = 0.25	Segments							
	1	2	3	4	5	6	7	8
Cycle length, C (s)	133.6	100.0	125.0					
Eff. green to cycle ratio, g/C	0.333	0.380	0.719					
v/c ratio for lane group, X	0.991	0.878	0.461					
Cap of lane group, c (veh/h)	1658	1928	3649					
Pct Veh on Grn., PVG								
Arrival type, AT	5	5	5					
Unit Extension, UE (sec)	3.0	3.0	3.0					
Length of segment, L (mi)	0.15	0.06	0.07					
Initial Queue, Qb (veh)	0	0	0					
Urban street class, SC	1	1	1					
Free-flow speed, FSS (mi/h)	50	50	50					
Running Time, TR (s)	15.8	6.3	7.3					
Other delay, (s)	0.0	0.0	0.0					
Delay Computation								
Uniform delay, d1 (s)	44.3	28.8	7.4	5.4	5.4	5.4	5.4	5.4
Incremental delay adj, k	0.49	0.40	0.11	0.50	0.50	0.50	0.50	0.50
Upstream filtering adj factor, l	1.000	0.112	0.359					
Incremental delay, d2 (s)	19.9	0.6	0.0	3.9				
Initial queue delay, d3 (s)	0	0	0					
Progression adj factor, PF	0.667	0.591	0.000	0.256	0.256	0.256	0.256	0.256
Control delay, d (s)	49.5	17.6	0.0					
Segment LOS Determination								
Travel time, ST (s)	65.2	23.9	7.4					
Travel speed, SA (mi/h)	8.3	9.0	34.1					
Segment LOS	F	F	B					
Urban Street LOS Determination								
Total travel time (s)	96.6							
Total length (mi)	0.28							
Total travel speed, SA (mi/h)	10.4							
Total urban street LOS	F							

URBAN STREET WORKSHEET #1								
General Information				Site Information				
Analyst <i>USAI</i>				Urban Street <i>EL CAMINO REAL</i>				
Agency/Co. <i>USAI</i>				Direction of Travel <i>South-bound</i>				
Date Performed <i>8/23/2012</i>				Jurisdiction <i>OCEANSIDE</i>				
Time Period <i>PM PEAK HOUR</i>				Analysis Year <i>NEAR-TERM PLUS PROJECT</i>				
Project Description: <i>QUARRY CREEK</i>								
Input Parameters								
Analysis Period(h) T = 0.25	Segments							
	1	2	3	4	5	6	7	8
Cycle length, C (s)	133.6	100.0	125.0					
Eff. green to cycle ratio, g/C	0.333	0.380	0.719					
v/c ratio for lane group, X	0.993	0.880	0.462					
Cap of lane group, c (veh/h)	1658	1928	3649					
Pct Veh on Grn., PVG								
Arrival type, AT	5	5	5					
Unit Extension, UE (sec)	3.0	3.0	3.0					
Length of segment, L (mi)	0.15	0.06	0.07					
Initial Queue, Qb (veh)	0	0	0					
Urban street class, SC	1	1	1					
Free-flow speed, FSS (mi/h)	50	50	50					
Running Time, TR (s)	15.8	6.3	7.3					
Other delay, (s)	0.0	0.0	0.0					
Delay Computation								
Uniform delay, d1 (s)	44.4	28.9	7.4	5.4	5.4	5.4	5.4	5.4
Incremental delay adj, k	0.49	0.41	0.11	0.50	0.50	0.50	0.50	0.50
Upstream filtering adj factor, I	1.000	0.106	0.354					
Incremental delay, d2 (s)	20.5	0.6	0.0	3.9				
Initial queue delay, d3 (s)	0	0	0					
Progression adj factor, PF	0.667	0.591	0.000	0.256	0.256	0.256	0.256	0.256
Control delay, d (s)	50.1	17.7	0.0					
Segment LOS Determination								
Travel time, ST (s)	65.8	24.0	7.4					
Travel speed, SA (mi/h)	8.2	9.0	34.1					
Segment LOS	F	F	B					
Urban Street LOS Determination								
Total travel time (s)	97.2							
Total length (mi)	0.28							
Total travel speed, SA (mi/h)	10.4							
Total urban street LOS	F							

URBAN STREET WORKSHEET #1								
General Information				Site Information				
Analyst	USAI			Urban Street	EL CAMINO REAL			
Agency/Co.	USAI			Direction of Travel	North-bound			
Date Performed	8/23/2012			Jurisdiction	OCEANSIDE			
Time Period	AM PEAK HOUR			Analysis Year	NEAR-TERM NO PROJECT			
Project Description: QUARRY CREEK								
Input Parameters								
Analysis Period(h) T = 0.25	Segments							
	1	2	3	4	5	6	7	8
Cycle length, C (s)	125.0	100.0	133.6					
Eff. green to cycle ratio, g/C	0.394	0.559	0.379					
v/c ratio for lane group, X	0.364	0.311	0.680					
Cap of lane group, c (veh/h)	1997	2836	1840					
Pct Veh on Grn., PVG								
Arrival type, AT	5	5	5					
Unit Extension, UE (sec)	3.0	3.0	3.0					
Length of segment, L (mi)	0.08	0.07	0.06					
Initial Queue, Qb (veh)	0	0	0					
Urban street class, SC	1	1	1					
Free-flow speed, FSS (mi/h)	50	50	50					
Running Time, TR (s)	8.4	7.3	6.3					
Other delay, (s)	0.0	0.0	0.0					
Delay Computation								
Uniform delay, d1 (s)	26.8	11.8	34.7	5.4	5.4	5.4	5.4	5.4
Incremental delay adj, k	0.11	0.11	0.25	0.50	0.50	0.50	0.50	0.50
Upstream filtering adj factor, I	1.000	0.940	0.960					
Incremental delay, d2 (s)	0.1	0.1	1.0	3.0				
Initial queue delay, d3 (s)	0	0	0					
Progression adj factor, PF	0.567	0.155	0.593	0.256	0.256	0.256	0.256	0.256
Control delay, d (s)	15.3	1.9	21.6					
Segment LOS Determination								
Travel time, ST (s)	23.7	9.2	27.9					
Travel speed, SA (mi/h)	12.1	27.3	7.7					
Segment LOS	F	C	F					
Urban Street LOS Determination								
Total travel time (s)	60.9							
Total length (mi)	0.21							
Total travel speed, SA (mi/h)	12.4							
Total urban street LOS	F							

URBAN STREET WORKSHEET #1								
General Information				Site Information				
Analyst USAI				Urban Street EL CAMINO REAL				
Agency/Co. USAI				Direction of Travel North-bound				
Date Performed 8/23/2012				Jurisdiction OCEANSIDE				
Time Period AM PEAK HOUR				Analysis Year NEAR-TERM WITH PROJECT				
Project Description: QUARRY CREEK								
Input Parameters								
Analysis Period(h) T = 0.25	Segments							
	1	2	3	4	5	6	7	8
Cycle length, C (s)	125.0	100.0	133.6					
Eff. green to cycle ratio, g/C	0.394	0.559	0.379					
v/c ratio for lane group, X	0.364	0.311	0.682					
Cap of lane group, c (veh/h)	1997	2836	1841					
Pct Veh on Grn., PVG								
Arrival type, AT	5	5	5					
Unit Extension, UE (sec)	3.0	3.0	3.0					
Length of segment, L (mi)	0.08	0.07	0.06					
Initial Queue, Qb (veh)	0	0	0					
Urban street class, SC	1	1	1					
Free-flow speed, FSS (mi/h)	50	50	50					
Running Time, TR (s)	8.4	7.3	6.3					
Other delay, (s)	0.0	0.0	0.0					
Delay Computation								
Uniform delay, d1 (s)	26.8	11.8	34.8	5.4	5.4	5.4	5.4	5.4
Incremental delay adj, k	0.11	0.11	0.25	0.50	0.50	0.50	0.50	0.50
Upstream filtering adj factor, I	1.000	0.940	0.960					
Incremental delay, d2 (s)	0.1	0.1	1.0	3.0				
Initial queue delay, d3 (s)	0	0	0					
Progression adj factor, PF	0.567	0.155	0.593	0.256	0.256	0.256	0.256	0.256
Control delay, d (s)	15.3	1.9	21.6					
Segment LOS Determination								
Travel time, ST (s)	23.7	9.2	27.9					
Travel speed, SA (mi/h)	12.1	27.3	7.7					
Segment LOS	F	C	F					
Urban Street LOS Determination								
Total travel time (s)	60.9							
Total length (mi)	0.21							
Total travel speed, SA (mi/h)	12.4							
Total urban street LOS	F							

URBAN STREET WORKSHEET #1								
General Information				Site Information				
Analyst <i>USAI</i>				Urban Street <i>EL CAMINO REAL</i>				
Agency/Co. <i>USAI</i>				Direction of Travel <i>South-bound</i>				
Date Performed <i>8/23/2012</i>				Jurisdiction <i>OCEANSIDE</i>				
Time Period <i>AM PEAK HOUR</i>				Analysis Year <i>NEAR-TERM NO PROJECT</i>				
Project Description: <i>QUARRY CREEK</i>								
Input Parameters								
Analysis Period(h) T = 0.25	Segments							
	1	2	3	4	5	6	7	8
Cycle length, C (s)	133.6	100.0	125.0					
Eff. green to cycle ratio, g/C	0.385	0.380	0.735					
v/c ratio for lane group, X	0.989	0.973	0.455					
Cap of lane group, c (veh/h)	1941	1928	3730					
Pct Veh on Grn., PVG								
Arrival type, AT	5	5	5					
Unit Extension, UE (sec)	3.0	3.0	3.0					
Length of segment, L (mi)	0.15	0.06	0.07					
Initial Queue, Qb (veh)	0	0	0					
Urban street class, SC	1	1	1					
Free-flow speed, FSS (mi/h)	50	50	50					
Running Time, TR (s)	15.8	6.3	7.3					
Other delay, (s)	0.0	0.0	0.0					
Delay Computation								
Uniform delay, d1 (s)	40.8	30.5	6.6	5.4	5.4	5.4	5.4	5.4
Incremental delay adj, k	0.49	0.48	0.11	0.50	0.50	0.50	0.50	0.50
Upstream filtering adj factor, I	1.000	0.117	0.154					
Incremental delay, d2 (s)	17.7	3.0	0.0	3.9				
Initial queue delay, d3 (s)	0	0	0					
Progression adj factor, PF	0.583	0.591	0.000	0.256	0.256	0.256	0.256	0.256
Control delay, d (s)	41.5	21.1	0.0					
Segment LOS Determination								
Travel time, ST (s)	57.3	27.4	7.4					
Travel speed, SA (mi/h)	9.4	7.9	34.2					
Segment LOS	F	F	B					
Urban Street LOS Determination								
Total travel time (s)	92.0							
Total length (mi)	0.28							
Total travel speed, SA (mi/h)	11.0							
Total urban street LOS	F							

URBAN STREET WORKSHEET #1								
General Information				Site Information				
Analyst <i>USAI</i>				Urban Street <i>EL CAMINO REAL</i>				
Agency/Co. <i>USAI</i>				Direction of Travel <i>South-bound</i>				
Date Performed <i>8/23/2012</i>				Jurisdiction <i>OCEANSIDE</i>				
Time Period <i>AM PEAK HOUR</i>				Analysis Year <i>NEAR-TERM PLUS PROJECT</i>				
Project Description: <i>QUARRY CREEK</i>								
Input Parameters								
Analysis Period(h) T = 0.25	Segments							
	1	2	3	4	5	6	7	8
Cycle length, C (s)	133.6	100.0	125.0					
Eff. green to cycle ratio, g/C	0.385	0.380	0.735					
v/c ratio for lane group, X	0.989	0.974	0.457					
Cap of lane group, c (veh/h)	1941	1928	3730					
Pct Veh on Grn., PVG								
Arrival type, AT	5	5	5					
Unit Extension, UE (sec)	3.0	3.0	3.0					
Length of segment, L (mi)	0.15	0.06	0.07					
Initial Queue, Qb (veh)	0	0	0					
Urban street class, SC	1	1	1					
Free-flow speed, FSS (mi/h)	50	50	50					
Running Time, TR (s)	15.8	6.3	7.3					
Other delay, (s)	0.0	0.0	0.0					
Delay Computation								
Uniform delay, d1 (s)	40.8	30.5	6.6	5.4	5.4	5.4	5.4	5.4
Incremental delay adj, k	0.49	0.48	0.11	0.50	0.50	0.50	0.50	0.50
Upstream filtering adj factor, I	1.000	0.116	0.153					
Incremental delay, d2 (s)	17.9	3.0	0.0	3.9				
Initial queue delay, d3 (s)	0	0	0					
Progression adj factor, PF	0.583	0.591	0.000	0.256	0.256	0.256	0.256	0.256
Control delay, d (s)	41.7	21.1	0.0					
Segment LOS Determination								
Travel time, ST (s)	57.4	27.4	7.4					
Travel speed, SA (mi/h)	9.4	7.9	34.2					
Segment LOS	F	F	B					
Urban Street LOS Determination								
Total travel time (s)	92.1							
Total length (mi)	0.28							
Total travel speed, SA (mi/h)	10.9							
Total urban street LOS	F							

URBAN STREET WORKSHEET #1								
General Information					Site Information			
Analyst USAI					Urban Street COLLEGE BLVD.			
Agency/Co. USAI					Direction of Travel North-bound			
Date Performed 8/30/2012					Jurisdiction OCEANSIDE			
Time Period AM PEAK HOUR					Analysis Year NEAR-TERM NO PROJECT			
Project Description: QUARRY CREEK								
Input Parameters								
Analysis Period(h) T = 0.25	Segments							
	1	2	3	4	5	6	7	8
Cycle length, C (s)	100.0	100.0	100.0	100.0	100.0			
Eff. green to cycle ratio, g/C	0.320	0.300	0.617	0.420	0.440			
v/c ratio for lane group, X	0.750	0.809	0.253	0.308	0.490			
Cap of lane group, c (veh/h)	1135	1442	4174	2131	1561			
Pct Veh on Grn., PVG								
Arrival type, AT	5	5	5	5	5			
Unit Extension, UE (sec)	3.0	3.0	3.0	3.0	3.0			
Length of segment, L (mi)	0.34	0.27	0.05	0.10	0.16			
Initial Queue, Qb (veh)	0	0	0	0	0			
Urban street class, SC	2	2	2	2	2			
Free-flow speed, FSS (mi/h)	40	40	40	40	40			
Running Time, TR (s)	33.9	28.8	5.8	11.5	18.4			
Other delay, (s)	0.0	0.0	0.0	0.0	0.0			
Delay Computation								
Uniform delay, d1 (s)	30.4	32.4	8.7	19.3	20.0	5.4	5.4	5.4
Incremental delay adj, k	0.30	0.35	0.11	0.11	0.11	0.50	0.50	0.50
Upstream filtering adj factor, I	1.000	0.579	0.484	0.977	0.961			
Incremental delay, d2 (s)	2.8	2.1	0.0	0.1	0.2	3.8		
Initial queue delay, d3 (s)	0	0	0	0	0			
Progression adj factor, PF	0.686	0.714	0.000	0.517	0.476	0.256	0.256	0.256
Control delay, d (s)	23.7	25.2	0.0	10.1	9.7			
Segment LOS Determination								
Travel time, ST (s)	57.6	54.0	5.8	21.6	28.1			
Travel speed, SA (mi/h)	21.3	18.0	31.2	16.7	20.5			
Segment LOS	D	D	B	E	D			
Urban Street LOS Determination								
Total travel time (s)	167.1	<div style="display: flex; justify-content: space-around; font-family: cursive;"> <div> NARROW PLAZA TO PLAZA </div> <div> PLAZA TO SR-1800 SR-1800 TO VISTA </div> <div> VISTA TO VISTA TO WARRING </div> </div>						
Total length (mi)	0.92							
Total travel speed, SA (mi/h)	19.8							
Total urban street LOS	D							

URBAN STREET WORKSHEET #1								
General Information				Site Information				
Analyst USAI				Urban Street COLLEGE BLVD.				
Agency/Co. USAI				Direction of Travel North-bound				
Date Performed 8/30/2012				Jurisdiction OCEANSIDE				
Time Period AM PEAK HOUR				Analysis Year NEAR-TERM PLUS PROJECT				
Project Description: QUARRY CREEK								
Input Parameters								
Analysis Period(h) T = 0.25	Segments							
	1	2	3	4	5	6	7	8
Cycle length, C (s)	100.0	100.0	100.0	100.0	100.0			
Eff. green to cycle ratio, g/C	0.320	0.300	0.617	0.420	0.440			
v/c ratio for lane group, X	0.764	0.893	0.291	0.331	0.516			
Cap of lane group, c (veh/h)	1135	1442	4174	2131	1561			
Pct Veh on Grn., PVG								
Arrival type, AT	5	5	5	5	5			
Unit Extension, UE (sec)	3.0	3.0	3.0	3.0	3.0			
Length of segment, L (mi)	0.34	0.27	0.05	0.10	0.16			
Initial Queue, Qb (veh)	0	0	0	0	0			
Urban street class, SC	2	2	2	2	2			
Free-flow speed, FSS (mi/h)	40	40	40	40	40			
Running Time, TR (s)	33.9	28.8	5.8	11.5	18.4			
Other delay, (s)	0.0	0.0	0.0	0.0	0.0			
Delay Computation								
Uniform delay, d1 (s)	30.6	33.5	8.9	19.5	20.3	5.4	5.4	5.4
Incremental delay adj, k	0.32	0.42	0.11	0.11	0.12	0.50	0.50	0.50
Upstream filtering adj factor, I	1.000	0.558	0.329	0.967	0.953			
Incremental delay, d2 (s)	3.1	4.4	0.0	0.1	0.3	3.7		
Initial queue delay, d3 (s)	0	0	0	0	0			
Progression adj factor, PF	0.686	0.714	0.000	0.517	0.476	0.256	0.256	0.256
Control delay, d (s)	24.1	28.3	0.0	10.2	9.9			
Segment LOS Determination								
Travel time, ST (s)	58.0	57.1	5.8	21.7	28.3			
Travel speed, SA (mi/h)	21.1	17.0	31.2	16.6	20.3			
Segment LOS	D	D	B	E	D			
Urban Street LOS Determination								
Total travel time (s)	170.9							
Total length (mi)	0.92							
Total travel speed, SA (mi/h)	19.4							
Total urban street LOS	D							

URBAN STREET WORKSHEET #1								
General Information				Site Information				
Analyst	USAI			Urban Street	COLLEGE BLVD.			
Agency/Co.	USAI			Direction of Travel	North-bound			
Date Performed	8/30/2012			Jurisdiction	OCEANSIDE			
Time Period	PM PEAK HOUR			Analysis Year	NEAR-TERM NO PROJECT			
Project Description: QUARRY CREEK								
Input Parameters								
Analysis Period(h) T = 0.25	Segments							
	1	2	3	4	5	6	7	8
Cycle length, C (s)	99.5	110.0	110.0	110.0	110.0			
Eff. green to cycle ratio, g/C	0.377	0.347	0.565	0.379	0.501			
v/c ratio for lane group, X	0.759	0.858	0.473	0.665	0.829			
Cap of lane group, c (veh/h)	1364	1721	3825	1924	1777			
Pct Veh on Grn., PVG								
Arrival type, AT	5	5	5	5	5			
Unit Extension, UE (sec)	3.0	3.0	3.0	3.0	3.0			
Length of segment, L (mi)	0.34	0.27	0.05	0.10	0.16			
Initial Queue, Qb (veh)	0	0	0	0	0			
Urban street class, SC	2	2	2	2	2			
Free-flow speed, FSS (mi/h)	40	40	40	40	40			
Running Time, TR (s)	33.9	28.8	5.8	11.5	18.4			
Other delay, (s)	0.0	0.0	0.0	0.0	0.0			
Delay Computation								
Uniform delay, d1 (s)	27.1	33.4	14.2	28.4	23.4	5.4	5.4	5.4
Incremental delay adj, k	0.31	0.39	0.11	0.24	0.37	0.50	0.50	0.50
Upstream filtering adj factor, l	1.000	0.566	0.397	0.878	0.695			
Incremental delay, d2 (s)	2.5	2.7	0.0	0.8	2.4	2.0		
Initial queue delay, d3 (s)	0	0	0	0	0			
Progression adj factor, PF	0.597	0.645	0.132	0.593	0.331	0.256	0.256	0.256
Control delay, d (s)	18.7	24.2	1.9	17.6	10.2			
Segment LOS Determination								
Travel time, ST (s)	52.5	53.0	7.7	29.1	28.6			
Travel speed, SA (mi/h)	23.3	18.3	23.5	12.4	20.2			
Segment LOS	C	D	C	F	D			
Urban Street LOS Determination								
Total travel time (s)	170.9							
Total length (mi)	0.92							
Total travel speed, SA (mi/h)	19.4							
Total urban street LOS	D							

URBAN STREET WORKSHEET #1								
General Information				Site Information				
Analyst USAI				Urban Street COLLEGE BLVD.				
Agency/Co. USAI				Direction of Travel North-bound				
Date Performed 8/31/2012				Jurisdiction OCEANSIDE				
Time Period PM PEAK HOUR				Analysis Year NEAR-TERM PLUS PROJECT				
Project Description: QUARRY CREEK								
Input Parameters								
Analysis Period(h) T = 0.25	Segments							
	1	2	3	4	5	6	7	8
Cycle length, C (s)	99.5	110.0	110.0	110.0	110.0			
Eff. green to cycle ratio, g/C	0.377	0.347	0.565	0.379	0.501			
v/c ratio for lane group, X	0.678	0.896	0.495	0.679	0.841			
Cap of lane group, c (veh/h)	1337	1719	3825	1924	1777			
Pct Veh on Grn., PVG								
Arrival type, AT	5	5	5	5	5			
Unit Extension, UE (sec)	3.0	3.0	3.0	3.0	3.0			
Length of segment, L (mi)	0.34	0.27	0.05	0.10	0.16			
Initial Queue, Qb (veh)	0	0	0	0	0			
Urban street class, SC	1	1	1	1	1			
Free-flow speed, FSS (mi/h)	50	50	50	50	50			
Running Time, TR (s)	31.1	26.5	5.3	10.5	16.8			
Other delay, (s)	0.0	0.0	0.0	0.0	0.0			
Delay Computation								
Uniform delay, d1 (s)	26.0	34.0	14.4	28.6	23.7	5.4	5.4	5.4
Incremental delay adj, k	0.25	0.42	0.11	0.25	0.38	0.50	0.50	0.50
Upstream filtering adj factor, I	1.000	0.678	0.321	0.862	0.677			
Incremental delay, d2 (s)	1.4	4.7	0.0	0.8	2.6	1.9		
Initial queue delay, d3 (s)	0	0	0	0	0			
Progression adj factor, PF	0.597	0.645	0.132	0.593	0.331	0.256	0.256	0.256
Control delay, d (s)	16.9	26.6	1.9	17.8	10.5			
Segment LOS Determination								
Travel time, ST (s)	48.0	53.1	7.2	28.3	27.3			
Travel speed, SA (mi/h)	25.5	18.3	25.0	12.7	21.1			
Segment LOS	D	E	D	F	D			
Urban Street LOS Determination								
Total travel time (s)	163.8							
Total length (mi)	0.92							
Total travel speed, SA (mi/h)	20.2							
Total urban street LOS	E							

URBAN STREET WORKSHEET #1								
General Information				Site Information				
Analyst USAI				Urban Street COLLEGE BLVD.				
Agency/Co. USAI				Direction of Travel South-bound				
Date Performed 09/03/12				Jurisdiction OCEANSIDE				
Time Period AM PEAK HOUR				Analysis Year NEAR-TERM NO PROJECT				
Project Description: QUARRY CREEK								
Input Parameters								
Analysis Period(h) T = 0.25	Segments							
	1	2	3	4	5	6	7	8
Cycle length, C (s)	100.0	100.0	100.0	100.0	100.0			
Eff. green to cycle ratio, g/C	0.440	0.420	0.617	0.530	0.420			
v/c ratio for lane group, X	0.883	0.728	0.384	0.546	0.730			
Cap of lane group, c (veh/h)	1561	2122	5218	2676	1490			
Pct Veh on Grn., PVG								
Arrival type, AT	5	5	5	5	5			
Unit Extension, UE (sec)	3.0	3.0	3.0	3.0	3.0			
Length of segment, L (mi)	0.35	0.16	0.10	0.50	0.27			
Initial Queue, Qb (veh)	0	0	0	0	0			
Urban street class, SC	2	2	2	2	2			
Free-flow speed, FSS (mi/h)	40	40	40	40	40			
Running Time, TR (s)	34.6	18.4	11.5	46.5	28.8			
Other delay, (s)	0.0	0.0	0.0	0.0	0.0			
Delay Computation								
Uniform delay, d1 (s)	25.6	24.2	9.6	15.5	24.3	5.4	5.4	5.4
Incremental delay adj, k	0.41	0.29	0.11	0.15	0.29	0.50	0.50	0.50
Upstream filtering adj factor, I	1.000	0.349	0.612	0.930	0.821			
Incremental delay, d2 (s)	6.3	0.5	0.0	0.2	1.5	2.7		
Initial queue delay, d3 (s)	0	0	0	0	0			
Progression adj factor, PF	0.476	0.517	0.000	0.248	0.517	0.256	0.256	0.256
Control delay, d (s)	18.5	13.0	0.0	4.1	14.1			
Segment LOS Determination								
Travel time, ST (s)	53.2	31.4	11.5	50.6	42.9			
Travel speed, SA (mi/h)	23.7	18.4	31.2	35.6	22.7			
Segment LOS	C	D	B	A	C			
Urban Street LOS Determination								
Total travel time (s)	189.6							
Total length (mi)	1.38							
Total travel speed, SA (mi/h)	26.2							
Total urban street LOS	C							

URBAN STREET WORKSHEET #1								
General Information				Site Information				
Analyst <i>USAI</i>				Urban Street <i>COLLEGE BLVD.</i>				
Agency/Co. <i>USAI</i>				Direction of Travel <i>South-bound</i>				
Date Performed <i>09/03/12</i>				Jurisdiction <i>OCEANSIDE</i>				
Time Period <i>AM PEAK HOUR</i>				Analysis Year <i>NEAR-TERM WITH PROJECT</i>				
Project Description: <i>QUARRY CREEK</i>								
Input Parameters								
Analysis Period(h) T = 0.25	Segments							
	1	2	3	4	5	6	7	8
Cycle length, C (s)	100.0	100.0	100.0	100.0	100.0			
Eff. green to cycle ratio, g/C	0.440	0.420	0.617	0.530	0.420			
v/c ratio for lane group, X	0.892	0.736	0.392	0.575	0.761			
Cap of lane group, c (veh/h)	1561	2123	5218	2665	1490			
Pct Veh on Grn., PVG								
Arrival type, AT	5	5	5	5	5			
Unit Extension, UE (sec)	3.0	3.0	3.0	3.0	3.0			
Length of segment, L (mi)	0.35	0.16	0.10	0.50	0.27			
Initial Queue, Qb (veh)	0	0	0	0	0			
Urban street class, SC	2	2	2	2	2			
Free-flow speed, FSS (mi/h)	40	40	40	40	40			
Running Time, TR (s)	34.6	18.4	11.5	46.5	28.8			
Other delay, (s)	0.0	0.0	0.0	0.0	0.0			
Delay Computation								
Uniform delay, d1 (s)	25.8	24.3	9.7	15.9	24.7	5.4	5.4	5.4
Incremental delay adj, k	0.42	0.29	0.11	0.17	0.31	0.50	0.50	0.50
Upstream filtering adj factor, I	1.000	0.331	0.600	0.926	0.793			
Incremental delay, d2 (s)	6.9	0.5	0.0	0.3	1.9	2.5		
Initial queue delay, d3 (s)	0	0	0	0	0			
Progression adj factor, PF	0.476	0.517	0.000	0.248	0.517	0.256	0.256	0.256
Control delay, d (s)	19.2	13.0	0.0	4.2	14.7			
Segment LOS Determination								
Travel time, ST (s)	53.8	31.4	11.5	50.7	43.5			
Travel speed, SA (mi/h)	23.4	18.3	31.2	35.5	22.3			
Segment LOS	C	D	B	A	C			
Urban Street LOS Determination								
Total travel time (s)	191.0	<div style="display: flex; justify-content: space-between;"> <div> <p style="margin: 0;">WARNING TO VISTAWAY</p> </div> <div> <p style="margin: 0;">PLAZA TO MARROW</p> </div> </div> <div style="text-align: center; margin-top: 20px;"> <p style="font-size: 1.2em; border: 1px solid black; border-radius: 50%; padding: 10px; display: inline-block;">ALL OK NO LOS E OR IF</p> </div>						
Total length (mi)	1.38							
Total travel speed, SA (mi/h)	26.0							
Total urban street LOS	C							

URBAN STREET WORKSHEET #1								
General Information				Site Information				
Analyst	USAI			Urban Street	COLLEGE BLVD.			
Agency/Co.	USAI			Direction of Travel	South-bound			
Date Performed	09/03/12			Jurisdiction	OCEANSIDE			
Time Period	PM PEAK HOUR			Analysis Year	NEAR-TERM NO PROJECT			
Project Description: QUARRY CREEK								
Input Parameters								
Analysis Period(h) T = 0.25	Segments							
	1	2	3	4	5	6	7	8
Cycle length, C (s)	110.0	110.0	110.0	110.0	99.5			
Eff. green to cycle ratio, g/C	0.364	0.283	0.565	0.504	0.377			
v/c ratio for lane group, X	0.874	0.963	0.417	0.653	0.660			
Cap of lane group, c (veh/h)	1290	1417	4782	2545	1337			
Pct Veh on Grn., PVG								
Arrival type, AT	5	5	5	5	5			
Unit Extension, UE (sec)	3.0	3.0	3.0	3.0	3.0			
Length of segment, L (mi)	0.35	0.16	0.10	0.50	0.27			
Initial Queue, Qb (veh)	0	0	0	0	0			
Urban street class, SC	2	2	2	2	2			
Free-flow speed, FSS (mi/h)	40	40	40	40	40			
Running Time, TR (s)	34.6	18.4	11.5	46.5	28.8			
Other delay, (s)	0.0	0.0	0.0	0.0	0.0			
Delay Computation								
Uniform delay, d1 (s)	32.7	38.9	13.6	20.2	25.7	5.4	5.4	5.4
Incremental delay adj, k	0.40	0.47	0.11	0.23	0.24	0.50	0.50	0.50
Upstream filtering adj factor, I	1.000	0.365	0.177	0.913	0.710			
Incremental delay, d2 (s)	7.0	7.8	0.0	0.6	0.9	3.1		
Initial queue delay, d3 (s)	0	0	0	0	0			
Progression adj factor, PF	0.619	0.737	0.132	0.323	0.597	0.256	0.256	0.256
Control delay, d (s)	27.2	36.5	1.8	7.1	16.2			
Segment LOS Determination								
Travel time, ST (s)	61.8	54.9	13.3	53.6	45.0			
Travel speed, SA (mi/h)	20.4	10.5	27.1	33.6	21.6			
Segment LOS	D	F	C	B	D			
Urban Street LOS Determination								
Total travel time (s)	228.6							
Total length (mi)	1.38							
Total travel speed, SA (mi/h)	21.7							
Total urban street LOS	D							

URBAN STREET WORKSHEET #1								
General Information				Site Information				
Analyst	USAI			Urban Street	COLLEGE BLVD.			
Agency/Co.	USAI			Direction of Travel	South-bound			
Date Performed	09/03/12			Jurisdiction	OCEANSIDE			
Time Period	PM PEAK HOUR			Analysis Year	NEAR-TERM WITH PROJECT			
Project Description: QUARRY CREEK								
Input Parameters								
Analysis Period(h) T = 0.25	Segments							
	1	2	3	4	5	6	7	8
Cycle length, C (s)	110.0	110.0	110.0	110.0	99.5			
Eff. green to cycle ratio, g/C	0.364	0.283	0.565	0.504	0.377			
v/c ratio for lane group, X	0.910	1.002	0.447	0.750	0.678			
Cap of lane group, c (veh/h)	1290	1418	4782	2520	1337			
Pct Veh on Grn., PVG								
Arrival type, AT	5	5	5	5	5			
Unit Extension, UE (sec)	3.0	3.0	3.0	3.0	3.0			
Length of segment, L (mi)	0.35	0.16	0.10	0.50	0.27			
Initial Queue, Qb (veh)	0	0	0	0	0			
Urban street class, SC	2	2	2	2	2			
Free-flow speed, FSS (mi/h)	40	40	40	40	40			
Running Time, TR (s)	34.6	18.4	11.5	46.5	28.8			
Other delay, (s)	0.0	0.0	0.0	0.0	0.0			
Delay Computation								
Uniform delay, d1 (s)	33.3	39.4	13.9	21.8	26.0	5.4	5.4	5.4
Incremental delay adj, k	0.43	0.50	0.11	0.31	0.25	0.50	0.50	0.50
Upstream filtering adj factor, I	1.000	0.293	0.090	0.895	0.579			
Incremental delay, d2 (s)	9.8	13.4	0.0	1.2	0.8	3.0		
Initial queue delay, d3 (s)	0	0	0	0	0			
Progression adj factor, PF	0.619	0.737	0.132	0.323	0.597	0.256	0.256	0.256
Control delay, d (s)	30.4	42.5	1.8	8.2	16.3			
Segment LOS Determination								
Travel time, ST (s)	65.0	60.9	13.3	54.7	45.1			
Travel speed, SA (mi/h)	19.4	9.5	27.0	32.9	21.5			
Segment LOS	D	F	C	B	D			
Urban Street LOS Determination								
Total travel time (s)	239.1							
Total length (mi)	1.38							
Total travel speed, SA (mi/h)	20.8							
Total urban street LOS	D							

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Version 4.1f

URBAN STREET WORKSHEET #1								
General Information				Site Information				
Analyst <i>USAI</i>				Urban Street <i>LAKE BLVD.</i>				
Agency/Co. <i>USAI</i>				Direction of Travel <i>East-bound</i>				
Date Performed <i>9/3/2012</i>				Jurisdiction <i>OCEANSIDE</i>				
Time Period <i>AM PEAK HOUR</i>				Analysis Year <i>NAER-TERM NO PROJECT</i>				
Project Description: <i>QUARRY CREEK</i>								
Input Parameters								
Analysis Period(h) T = 0.25	Segments							
	1	2	3	4	5	6	7	8
Cycle length, C (s)	70.0							
Eff. green to cycle ratio, g/C	0.429							
v/c ratio for lane group, X	0.186							
Cap of lane group, c (veh/h)	1518							
Pct Veh on Grn., PVG								
Arrival type, AT	3							
Unit Extension, UE (sec)	3.0							
Length of segment, L (mi)	0.36							
Initial Queue, Qb (veh)	0							
Urban street class, SC	3							
Free-flow speed, FSS (mi/h)	35							
Running Time, TR (s)	38.4							
Other delay, (s)	0.0							
Delay Computation								
Uniform delay, d1 (s)	12.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4
Incremental delay adj, k	0.11	0.50	0.50	0.50	0.50	0.50	0.50	0.50
Upstream filtering adj factor, I	1.000							
Incremental delay, d2 (s)	0.1	4.3						
Initial queue delay, d3 (s)	0							
Progression adj factor, PF	1.000	0.256	0.256	0.256	0.256	0.256	0.256	0.256
Control delay, d (s)	12.5							
Segment LOS Determination								
Travel time, ST (s)	50.9							
Travel speed, SA (mi/h)	25.5							
Segment LOS	B							
Urban Street LOS Determination								
Total travel time (s)	50.9	OK						
Total length (mi)	0.36							
Total travel speed, SA (mi/h)	25.5							
Total urban street LOS	B							

URBAN STREET WORKSHEET #1								
General Information				Site Information				
Analyst	USAI	Urban Street	LAKE BLVD.					
Agency/Co.	USAI	Direction of Travel	East-bound					
Date Performed	9/3/2012	Jurisdiction	OCEANSIDE					
Time Period	AM PEAK HOUR	Analysis Year	NAER-TERM WITH PROJECT					
Project Description: QUARRY CREEK								
Input Parameters								
Analysis Period(h) T = 0.25	Segments							
	1	2	3	4	5	6	7	8
Cycle length, C (s)	70.0							
Eff. green to cycle ratio, g/C	0.429							
v/c ratio for lane group, X	0.198							
Cap of lane group, c (veh/h)	1518							
Pct Veh on Grn., PVG								
Arrival type, AT	3							
Unit Extension, UE (sec)	3.0							
Length of segment, L (mi)	0.36							
Initial Queue, Qb (veh)	0							
Urban street class, SC	3							
Free-flow speed, FSS (mi/h)	35							
Running Time, TR (s)	38.4							
Other delay, (s)	0.0							
Delay Computation								
Uniform delay, d1 (s)	12.5	5.4	5.4	5.4	5.4	5.4	5.4	5.4
Incremental delay adj, k	0.11	0.50	0.50	0.50	0.50	0.50	0.50	0.50
Upstream filtering adj factor, I	1.000							
Incremental delay, d2 (s)	0.1	4.3						
Initial queue delay, d3 (s)	0							
Progression adj factor, PF	1.000	0.256	0.256	0.256	0.256	0.256	0.256	0.256
Control delay, d (s)	12.6							
Segment LOS Determination								
Travel time, ST (s)	50.9							
Travel speed, SA (mi/h)	25.4							
Segment LOS	B							
Urban Street LOS Determination								
Total travel time (s)	50.9							
Total length (mi)	0.36 <i>OK</i>							
Total travel speed, SA (mi/h)	25.4							
Total urban street LOS	B <i>✓</i>							

URBAN STREET WORKSHEET #1								
General Information				Site Information				
Analyst	USAI			Urban Street	LAKE BLVD.			
Agency/Co.	USAI			Direction of Travel	East-bound			
Date Performed	9/3/2012			Jurisdiction	OCEANSIDE			
Time Period	PM PEAK HOUR			Analysis Year	NAER-TERM NO PROJECT			
Project Description: QUARRY CREEK								
Input Parameters								
Analysis Period(h) T = 0.25	Segments							
	1	2	3	4	5	6	7	8
Cycle length, C (s)	80.0							
Eff. green to cycle ratio, g/C	0.375							
v/c ratio for lane group, X	0.444							
Cap of lane group, c (veh/h)	1328							
Pct Veh on Grn., PVG								
Arrival type, AT	3							
Unit Extension, UE (sec)	3.0							
Length of segment, L (mi)	0.36							
Initial Queue, Qb (veh)	0							
Urban street class, SC	3							
Free-flow speed, FSS (mi/h)	35							
Running Time, TR (s)	38.4							
Other delay, (s)	0.0							
Delay Computation								
Uniform delay, d1 (s)	18.7	5.4	5.4	5.4	5.4	5.4	5.4	5.4
Incremental delay adj, k	0.11	0.50	0.50	0.50	0.50	0.50	0.50	0.50
Upstream filtering adj factor, I	1.000							
Incremental delay, d2 (s)	0.2	3.9						
Initial queue delay, d3 (s)	0							
Progression adj factor, PF	1.000	0.256	0.256	0.256	0.256	0.256	0.256	0.256
Control delay, d (s)	19.0							
Segment LOS Determination								
Travel time, ST (s)	57.4							
Travel speed, SA (mi/h)	22.6							
Segment LOS	C							
Urban Street LOS Determination								
Total travel time (s)	57.4							
Total length (mi)	0.36							
Total travel speed, SA (mi/h)	22.6							
Total urban street LOS	C ✓ OK							

URBAN STREET WORKSHEET #1								
General Information				Site Information				
Analyst USAI				Urban Street LAKE BLVD.				
Agency/Co. USAI				Direction of Travel East-bound				
Date Performed 9/3/2012				Jurisdiction OCEANSIDE				
Time Period PM PEAK HOUR				Analysis Year NEAR-TERM WITH PROJECT				
Project Description: QUARRY CREEK								
Input Parameters								
Analysis Period(h) T = 0.25	Segments							
	1	2	3	4	5	6	7	8
Cycle length, C (s)	80.0							
Eff. green to cycle ratio, g/C	0.375							
v/c ratio for lane group, X	0.452							
Cap of lane group, c (veh/h)	1328							
Pct Veh on Grn., PVG								
Arrival type, AT	3							
Unit Extension, UE (sec)	3.0							
Length of segment, L (mi)	0.36							
Initial Queue, Qb (veh)	0							
Urban street class, SC	3							
Free-flow speed, FSS (mi/h)	35							
Running Time, TR (s)	38.4							
Other delay, (s)	0.0							
Delay Computation								
Uniform delay, d1 (s)	18.8	5.4	5.4	5.4	5.4	5.4	5.4	5.4
Incremental delay adj, k	0.11	0.50	0.50	0.50	0.50	0.50	0.50	0.50
Upstream filtering adj factor, l	1.000							
Incremental delay, d2 (s)	0.2	3.9						
Initial queue delay, d3 (s)	0							
Progression adj factor, PF	1.000	0.256	0.256	0.256	0.256	0.256	0.256	0.256
Control delay, d (s)	19.1							
Segment LOS Determination								
Travel time, ST (s)	57.4							
Travel speed, SA (mi/h)	22.6							
Segment LOS	C							
Urban Street LOS Determination								
Total travel time (s)	57.4							
Total length (mi)	0.36							
Total travel speed, SA (mi/h)	22.6							
Total urban street LOS	C ✓ OK							

URBAN STREET WORKSHEET #1								
General Information				Site Information				
Analyst USAI				Urban Street LAKE BLVD.				
Agency/Co. USAI				Direction of Travel West-bound				
Date Performed 9/3/2012				Jurisdiction OCEANSIDE				
Time Period AM PEAK HOUR				Analysis Year NEAR-TERM NO PROJECT				
Project Description: QUARRY CREEK								
Input Parameters								
Analysis Period(h) T = 0.25	Segments							
	1	2	3	4	5	6	7	8
Cycle length, C (s)	70.0							
Eff. green to cycle ratio, g/C	0.429							
v/c ratio for lane group, X	0.430							
Cap of lane group, c (veh/h)	1482							
Pct Veh on Grn., PVG								
Arrival type, AT	3							
Unit Extension, UE (sec)	3.0							
Length of segment, L (mi)	0.65							
Initial Queue, Qb (veh)	0							
Urban street class, SC	3							
Free-flow speed, FSS (mi/h)	35							
Running Time, TR (s)	66.9							
Other delay, (s)	0.0							
Delay Computation								
Uniform delay, d1 (s)	14.0	5.4	5.4	5.4	5.4	5.4	5.4	5.4
Incremental delay adj, k	0.11	0.50	0.50	0.50	0.50	0.50	0.50	0.50
Upstream filtering adj factor, I	1.000							
Incremental delay, d2 (s)	0.2	4.0						
Initial queue delay, d3 (s)	0							
Progression adj factor, PF	1.000	0.256	0.256	0.256	0.256	0.256	0.256	0.256
Control delay, d (s)	14.2							
Segment LOS Determination								
Travel time, ST (s)	81.2							
Travel speed, SA (mi/h)	28.8							
Segment LOS	B							
Urban Street LOS Determination								
Total travel time (s)	81.2							
Total length (mi)	0.65							
Total travel speed, SA (mi/h)	28.8							
Total urban street LOS	B ✓ OK							

URBAN STREET WORKSHEET #1								
General Information				Site Information				
Analyst	USAI			Urban Street	LAKE BLVD.			
Agency/Co.	USAI			Direction of Travel	West-bound			
Date Performed	9/3/2012			Jurisdiction	OCEANSIDE			
Time Period	AM PEAK HOUR			Analysis Year	NEAR-TERM WITH PROJECT			
Project Description: QUARRY CREEK								
Input Parameters								
Analysis Period(h) T = 0.25	Segments							
	1	2	3	4	5	6	7	8
Cycle length, C (s)	70.0							
Eff. green to cycle ratio, g/C	0.429							
v/c ratio for lane group, X	0.434							
Cap of lane group, c (veh/h)	1482							
Pct Veh on Grn., PVG								
Arrival type, AT	3							
Unit Extension, UE (sec)	3.0							
Length of segment, L (mi)	0.65							
Initial Queue, Qb (veh)	0							
Urban street class, SC	3							
Free-flow speed, FSS (mi/h)	35							
Running Time, TR (s)	66.9							
Other delay, (s)	0.0							
Delay Computation								
Uniform delay, d1 (s)	14.0	5.4	5.4	5.4	5.4	5.4	5.4	5.4
Incremental delay adj, k	0.11	0.50	0.50	0.50	0.50	0.50	0.50	0.50
Upstream filtering adj factor, l	1.000							
Incremental delay, d2 (s)	0.2	4.0						
Initial queue delay, d3 (s)	0							
Progression adj factor, PF	1.000	0.256	0.256	0.256	0.256	0.256	0.256	0.256
Control delay, d (s)	14.2							
Segment LOS Determination								
Travel time, ST (s)	81.2							
Travel speed, SA (mi/h)	28.8							
Segment LOS	B							
Urban Street LOS Determination								
Total travel time (s)	81.2							
Total length (mi)	0.65							
Total travel speed, SA (mi/h)	28.8							
Total urban street LOS	B ✓ OK							

URBAN STREET WORKSHEET #1								
General Information				Site Information				
Analyst <i>USAI</i>				Urban Street <i>LAKE BLVD.</i>				
Agency/Co. <i>USAI</i>				Direction of Travel <i>West-bound</i>				
Date Performed <i>9/3/2012</i>				Jurisdiction <i>OCEANSIDE</i>				
Time Period <i>PM PEAK HOUR</i>				Analysis Year <i>NEAR-TERM NO PROJECT</i>				
Project Description: <i>QUARRY CREEK</i>								
Input Parameters								
Analysis Period(h) T = 0.25	Segments							
	1	2	3	4	5	6	7	8
Cycle length, C (s)	80.0							
Eff. green to cycle ratio, g/C	0.375							
v/c ratio for lane group, X	0.343							
Cap of lane group, c (veh/h)	1272							
Pct Veh on Grn., PVG								
Arrival type, AT	3							
Unit Extension, UE (sec)	3.0							
Length of segment, L (mi)	0.65							
Initial Queue, Qb (veh)	0							
Urban street class, SC	3							
Free-flow speed, FSS (mi/h)	35							
Running Time, TR (s)	66.9							
Other delay, (s)	0.0							
Delay Computation								
Uniform delay, d1 (s)	17.9	5.4	5.4	5.4	5.4	5.4	5.4	5.4
Incremental delay adj, k	0.11	0.50	0.50	0.50	0.50	0.50	0.50	0.50
Upstream filtering adj factor, l	1.000							
Incremental delay, d2 (s)	0.2	4.2						
Initial queue delay, d3 (s)	0							
Progression adj factor, PF	1.000	0.256	0.256	0.256	0.256	0.256	0.256	0.256
Control delay, d (s)	18.1							
Segment LOS Determination								
Travel time, ST (s)	85.0							
Travel speed, SA (mi/h)	27.5							
Segment LOS	B							
Urban Street LOS Determination								
Total travel time (s)	85.0							
Total length (mi)	0.65							
Total travel speed, SA (mi/h)	27.5							
Total urban street LOS	B	✓ OK						

URBAN STREET WORKSHEET #1								
General Information				Site Information				
Analyst USAI				Urban Street LAKE BLVD.				
Agency/Co. USAI				Direction of Travel West-bound				
Date Performed 9/3/2012				Jurisdiction OCEANSIDE				
Time Period PM PEAK HOUR				Analysis Year NEAR-TERM WITH PROJECT				
Project Description: QUARRY CREEK								
Input Parameters								
Analysis Period(h) T = 0.25	Segments							
	1	2	3	4	5	6	7	8
Cycle length, C (s)	80.0							
Eff. green to cycle ratio, g/C	0.375							
v/c ratio for lane group, X	0.356							
Cap of lane group, c (veh/h)	1274							
Pct Veh on Grn., PVG								
Arrival type, AT	3							
Unit Extension, UE (sec)	3.0							
Length of segment, L (mi)	0.65							
Initial Queue, Qb (veh)	0							
Urban street class, SC	3							
Free-flow speed, FSS (mi/h)	35							
Running Time, TR (s)	66.9							
Other delay, (s)	0.0							
Delay Computation								
Uniform delay, d1 (s)	18.0	5.4	5.4	5.4	5.4	5.4	5.4	5.4
Incremental delay adj, k	0.11	0.50	0.50	0.50	0.50	0.50	0.50	0.50
Upstream filtering adj factor, I	1.000							
Incremental delay, d2 (s)	0.2	4.1						
Initial queue delay, d3 (s)	0							
Progression adj factor, PF	1.000	0.256	0.256	0.256	0.256	0.256	0.256	0.256
Control delay, d (s)	18.2							
Segment LOS Determination								
Travel time, ST (s)	85.2							
Travel speed, SA (mi/h)	27.5							
Segment LOS	B							
Urban Street LOS Determination								
Total travel time (s)	85.2							
Total length (mi)	0.65							
Total travel speed, SA (mi/h)	27.5							
Total urban street LOS	B ✓							

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URBAN STREET WORKSHEET #1								
General Information				Site Information				
Analyst USAI				Urban Street VISTA WAY				
Agency/Co. USAI				Direction of Travel East-bound				
Date Performed 8/30/2012				Jurisdiction OCEANSIDE				
Time Period AM PEAK HOUR				Analysis Year NEAR-TERM NO PROJECT				
Project Description: QUARRY CREEK								
Input Parameters								
Analysis Period(h) T = 0.25	Segments							
	1	2	3	4	5	6	7	8
Cycle length, C (s)	100.0	100.0						
Eff. green to cycle ratio, g/C	0.070	0.260						
v/c ratio for lane group, X	0.621	0.711						
Cap of lane group, c (veh/h)	248	922						
Pct Veh on Grn., PVG								
Arrival type, AT	5	5						
Unit Extension, UE (sec)	3.0	3.0						
Length of segment, L (mi)	0.20	0.10						
Initial Queue, Qb (veh)	0	0						
Urban street class, SC	2	2						
Free-flow speed, FSS (mi/h)	40	40						
Running Time, TR (s)	23.0	11.5						
Other delay, (s)	0.0	0.0						
Delay Computation								
Uniform delay, d1 (s)	45.2	33.6	5.4	5.4	5.4	5.4	5.4	5.4
Incremental delay adj, k	0.20	0.27	0.50	0.50	0.50	0.50	0.50	0.50
Upstream filtering adj factor, I	1.000	0.746						
Incremental delay, d2 (s)	4.7	1.9	2.8					
Initial queue delay, d3 (s)	0	0						
Progression adj factor, PF	0.950	0.766	0.256	0.256	0.256	0.256	0.256	0.256
Control delay, d (s)	47.7	27.7						
Segment LOS Determination								
Travel time, ST (s)	70.7	39.2						
Travel speed, SA (mi/h)	10.2	9.2						
Segment LOS	F	F						
Urban Street LOS Determination								
Total travel time (s)	109.8							
Total length (mi)	0.30							
Total travel speed, SA (mi/h)	9.8							
Total urban street LOS	F							

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URBAN STREET WORKSHEET #1								
General Information				Site Information				
Analyst USAI				Urban Street VISTA WAY				
Agency/Co. USAI				Direction of Travel East-bound				
Date Performed 8/30/2012				Jurisdiction OCEANSIDE				
Time Period AM PEAK HOUR				Analysis Year NEAR-TERM WITH PROJECT				
Project Description: QUARRY CREEK								
Input Parameters								
Analysis Period(h) T = 0.25	Segments							
	1	2	3	4	5	6	7	8
Cycle length, C (s)	100.0	100.0						
Eff. green to cycle ratio, g/C	0.070	0.260						
v/c ratio for lane group, X	0.621	0.722						
Cap of lane group, c (veh/h)	248	922						
Pct Veh on Grn., PVG								
Arrival type, AT	5	5						
Unit Extension, UE (sec)	3.0	3.0						
Length of segment, L (mi)	0.20	0.10						
Initial Queue, Qb (veh)	0	0						
Urban street class, SC	2	2						
Free-flow speed, FSS (mi/h)	40	40						
Running Time, TR (s)	23.0	11.5						
Other delay, (s)	0.0	0.0						
Delay Computation								
Uniform delay, d1 (s)	45.2	33.7	5.4	5.4	5.4	5.4	5.4	5.4
Incremental delay adj, k	0.20	0.28	0.50	0.50	0.50	0.50	0.50	0.50
Upstream filtering adj factor, I	1.000	0.746						
Incremental delay, d2 (s)	4.7	2.1	2.7					
Initial queue delay, d3 (s)	0	0						
Progression adj factor, PF	0.950	0.766	0.256	0.256	0.256	0.256	0.256	0.256
Control delay, d (s)	47.7	27.9						
Segment LOS Determination								
Travel time, ST (s)	70.7	39.4						
Travel speed, SA (mi/h)	10.2	9.1						
Segment LOS	F	F						
Urban Street LOS Determination								
Total travel time (s)	110.1							
Total length (mi)	0.30							
Total travel speed, SA (mi/h)	9.8							
Total urban street LOS	F							

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URBAN STREET WORKSHEET #1								
General Information				Site Information				
Analyst USAI				Urban Street VISTA WAY				
Agency/Co. USAI				Direction of Travel East-bound				
Date Performed 8/30/2012				Jurisdiction OCEANSIDE				
Time Period PM PEAK HOUR				Analysis Year NEAR-TERM NO PROJECT				
Project Description: QUARRY CREEK								
Input Parameters								
Analysis Period(h) T = 0.25	Segments							
	1	2	3	4	5	6	7	8
Cycle length, C (s)	110.0	110.0						
Eff. green to cycle ratio, g/C	0.091	0.164						
v/c ratio for lane group, X	0.764	0.993						
Cap of lane group, c (veh/h)	322	580						
Pct Veh on Grn., PVG								
Arrival type, AT	5	5						
Unit Extension, UE (sec)	3.0	3.0						
Length of segment, L (mi)	0.20	0.10						
Initial Queue, Qb (veh)	0	0						
Urban street class, SC	2	2						
Free-flow speed, FSS (mi/h)	40	40						
Running Time, TR (s)	23.0	11.5						
Other delay, (s)	0.0	0.0						
Delay Computation								
Uniform delay, d1 (s)	48.8	45.9	5.4	5.4	5.4	5.4	5.4	5.4
Incremental delay adj, k	0.32	0.49	0.50	0.50	0.50	0.50	0.50	0.50
Upstream filtering adj factor, I	1.000	0.558						
Incremental delay, d2 (s)	10.4	26.2	0.5					
Initial queue delay, d3 (s)	0	0						
Progression adj factor, PF	0.933	0.869	0.256	0.256	0.256	0.256	0.256	0.256
Control delay, d (s)	56.0	66.1						
Segment LOS Determination								
Travel time, ST (s)	79.0	77.6						
Travel speed, SA (mi/h)	9.1	4.6						
Segment LOS	F	F						
Urban Street LOS Determination								
Total travel time (s)	156.6							
Total length (mi)	0.30							
Total travel speed, SA (mi/h)	6.9							
Total urban street LOS	F							

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URBAN STREET WORKSHEET #1

General Information

Analyst USAI
 Agency/Co. USAI
 Date Performed 8/30/2012
 Time Period PM PEAK HOUR

Site Information

Urban Street VISTA WAY
 Direction of Travel East-bound
 Jurisdiction OCEANSIDE
 Analysis Year NEAR-TERM WITH PROJECT

Project Description: QUARRY CREEK

Input Parameters

Analysis Period(h) T = 0.25	Segments							
	1	2	3	4	5	6	7	8
Cycle length, C (s)	110.0	110.0						
Eff. green to cycle ratio, g/C	0.091	0.164						
v/c ratio for lane group, X	0.764	1.003						
Cap of lane group, c (veh/h)	322	580						
Pct Veh on Grn., PVG								
Arrival type, AT	5	5						
Unit Extension, UE (sec)	3.0	3.0						
Length of segment, L (mi)	0.20	0.10						
Initial Queue, Qb (veh)	0	0						
Urban street class, SC	2	2						
Free-flow speed, FSS (mi/h)	40	40						
Running Time, TR (s)	23.0	11.5						
Other delay, (s)	0.0	0.0						

Delay Computation

Uniform delay, d1 (s)	48.8	46.0	5.4	5.4	5.4	5.4	5.4	5.4
Incremental delay adj, k	0.32	0.50	0.50	0.50	0.50	0.50	0.50	0.50
Upstream filtering adj factor, I	1.000	0.558						
Incremental delay, d2 (s)	10.4	28.7	0.4					
Initial queue delay, d3 (s)	0	0						
Progression adj factor, PF	0.933	0.869	0.256	0.256	0.256	0.256	0.256	0.256
Control delay, d (s)	56.0	68.7						

Segment LOS Determination

Travel time, ST (s)	79.0	80.2						
Travel speed, SA (mi/h)	9.1	4.5						
Segment LOS	F	F						

Urban Street LOS Determination

Total travel time (s)	159.2
Total length (mi)	0.30
Total travel speed, SA (mi/h)	6.8
Total urban street LOS	F

A.6 → 4.5
 OK
 NOT SIG.
 LESS THAN 1.0

URBAN STREET WORKSHEET #1								
General Information				Site Information				
Analyst <i>USAI</i>				Urban Street <i>VISTA WAY</i>				
Agency/Co. <i>USAI</i>				Direction of Travel <i>West-bound</i>				
Date Performed <i>8/30/2012</i>				Jurisdiction <i>OCEANSIDE</i>				
Time Period <i>AM PEAK HOUR</i>				Analysis Year <i>NEAR-TERM NO PROJECT</i>				
Project Description: <i>QUARRY CREEK</i>								
Input Parameters								
Analysis Period(h) T = 0.25	Segments							
	1	2	3	4	5	6	7	8
Cycle length, C (s)	100.0	100.0						
Eff. green to cycle ratio, g/C	0.260	0.206						
v/c ratio for lane group, X	0.321	0.651						
Cap of lane group, c (veh/h)	898	654						
Pct Veh on Grn., PVG								
Arrival type, AT	5	5						
Unit Extension, UE (sec)	3.0	3.0						
Length of segment, L (mi)	0.10	0.10						
Initial Queue, Qb (veh)	0	0						
Urban street class, SC	2	2						
Free-flow speed, FSS (mi/h)	40	40						
Running Time, TR (s)	11.5	11.5						
Other delay, (s)	0.0	0.0						
Delay Computation								
Uniform delay, d1 (s)	29.9	36.4	5.4	5.4	5.4	5.4	5.4	5.4
Incremental delay adj, k	0.11	0.23	0.50	0.50	0.50	0.50	0.50	0.50
Upstream filtering adj factor, l	1.000	0.957						
Incremental delay, d2 (s)	0.2	2.2	3.1					
Initial queue delay, d3 (s)	0	0						
Progression adj factor, PF	0.766	0.827	0.256	0.256	0.256	0.256	0.256	0.256
Control delay, d (s)	23.1	32.3						
Segment LOS Determination								
Travel time, ST (s)	34.6	43.8						
Travel speed, SA (mi/h)	10.4	8.2						
Segment LOS	F	F						
Urban Street LOS Determination								
Total travel time (s)	78.4							
Total length (mi)	0.20							
Total travel speed, SA (mi/h)	9.2							
Total urban street LOS	F							

URBAN STREET WORKSHEET #1								
General Information				Site Information				
Analyst USAI				Urban Street VISTA WAY				
Agency/Co. USAI				Direction of Travel West-bound				
Date Performed 8/30/2012				Jurisdiction OCEANSIDE				
Time Period AM PEAK HOUR				Analysis Year NEAR-TERM WITH PROJECT				
Project Description: QUARRY CREEK								
Input Parameters								
Analysis Period(h) T = 0.25	Segments							
	1	2	3	4	5	6	7	8
Cycle length, C (s)	100.0	100.0						
Eff. green to cycle ratio, g/C	0.260	0.206						
v/c ratio for lane group, X	0.326	0.651						
Cap of lane group, c (veh/h)	899	654						
Pct Veh on Grn., PVG								
Arrival type, AT	5	5						
Unit Extension, UE (sec)	3.0	3.0						
Length of segment, L (mi)	0.10	0.10						
Initial Queue, Qb (veh)	0	0						
Urban street class, SC	2	2						
Free-flow speed, FSS (mi/h)	40	40						
Running Time, TR (s)	11.5	11.5						
Other delay, (s)	0.0	0.0						
Delay Computation								
Uniform delay, d1 (s)	29.9	36.4	5.4	5.4	5.4	5.4	5.4	5.4
Incremental delay adj, k	0.11	0.23	0.50	0.50	0.50	0.50	0.50	0.50
Upstream filtering adj factor, l	1.000	0.955						
Incremental delay, d2 (s)	0.2	2.2	3.1					
Initial queue delay, d3 (s)	0	0						
Progression adj factor, PF	0.766	0.827	0.256	0.256	0.256	0.256	0.256	0.256
Control delay, d (s)	23.1	32.3						
Segment LOS Determination								
Travel time, ST (s)	34.6	43.8						
Travel speed, SA (mi/h)	10.4	8.2						
Segment LOS	F	F						
Urban Street LOS Determination								
Total travel time (s)	78.4							
Total length (mi)	0.20							
Total travel speed, SA (mi/h)	9.2							
Total urban street LOS	F							

URBAN STREET WORKSHEET #1								
General Information				Site Information				
Analyst <i>USAI</i>				Urban Street <i>VISTA WAY</i>				
Agency/Co. <i>USAI</i>				Direction of Travel <i>West-bound</i>				
Date Performed <i>8/30/2012</i>				Jurisdiction <i>OCEANSIDE</i>				
Time Period <i>PM PEAK HOUR</i>				Analysis Year <i>NEAR-TERM NO PROJECT</i>				
Project Description: <i>QUARRY CREEK</i>								
Input Parameters								
Analysis Period(h) T = 0.25	Segments							
	1	2	3	4	5	6	7	8
Cycle length, C (s)	110.0	110.0						
Eff. green to cycle ratio, g/C	0.282	0.287						
v/c ratio for lane group, X	0.601	0.909						
Cap of lane group, c (veh/h)	987	932						
Pct Veh on Grn., PVG								
Arrival type, AT	5	5						
Unit Extension, UE (sec)	3.0	3.0						
Length of segment, L (mi)	0.10	0.10						
Initial Queue, Qb (veh)	0	0						
Urban street class, SC	2	2						
Free-flow speed, FSS (mi/h)	40	40						
Running Time, TR (s)	11.5	11.5						
Other delay, (s)	0.0	0.0						
Delay Computation								
Uniform delay, d1 (s)	34.2	37.8	5.4	5.4	5.4	5.4	5.4	5.4
Incremental delay adj, k	0.19	0.43	0.50	0.50	0.50	0.50	0.50	0.50
Upstream filtering adj factor, I	1.000	0.768						
Incremental delay, d2 (s)	1.0	10.2	1.3					
Initial queue delay, d3 (s)	0	0						
Progression adj factor, PF	0.738	0.731	0.256	0.256	0.256	0.256	0.256	0.256
Control delay, d (s)	26.2	37.8						
Segment LOS Determination								
Travel time, ST (s)	37.7	49.3						
Travel speed, SA (mi/h)	9.5	7.3						
Segment LOS	F	F						
Urban Street LOS Determination								
Total travel time (s)	87.0							
Total length (mi)	0.20							
Total travel speed, SA (mi/h)	8.3							
Total urban street LOS	F							

URBAN STREET WORKSHEET #1								
General Information				Site Information				
Analyst USAI				Urban Street VISTA WAY				
Agency/Co. USAI				Direction of Travel West-bound				
Date Performed 8/30/2012				Jurisdiction OCEANSIDE				
Time Period PM PEAK HOUR				Analysis Year NEAR-TERM WITH PROJECT				
Project Description: QUARRY CREEK								
Input Parameters								
Analysis Period(h) T = 0.25	Segments							
	1	2	3	4	5	6	7	8
Cycle length, C (s)	110.0	110.0						
Eff. green to cycle ratio, g/C	0.282	0.287						
v/c ratio for lane group, X	0.612	0.909						
Cap of lane group, c (veh/h)	987	932						
Pct Veh on Grn., PVG								
Arrival type, AT	5	5						
Unit Extension, UE (sec)	3.0	3.0						
Length of segment, L (mi)	0.10	0.10						
Initial Queue, Qb (veh)	0	0						
Urban street class, SC	2	2						
Free-flow speed, FSS (mi/h)	40	40						
Running Time, TR (s)	11.5	11.5						
Other delay, (s)	0.0	0.0						
Delay Computation								
Uniform delay, d1 (s)	34.3	37.8	5.4	5.4	5.4	5.4	5.4	5.4
Incremental delay adj, k	0.20	0.43	0.50	0.50	0.50	0.50	0.50	0.50
Upstream filtering adj factor, I	1.000	0.756						
Incremental delay, d2 (s)	1.1	10.0	1.3					
Initial queue delay, d3 (s)	0	0						
Progression adj factor, PF	0.738	0.731	0.256	0.256	0.256	0.256	0.256	0.256
Control delay, d (s)	26.4	37.7						
Segment LOS Determination								
Travel time, ST (s)	37.9	49.2						
Travel speed, SA (mi/h)	9.5	7.3						
Segment LOS	F	F						
Urban Street LOS Determination								
Total travel time (s)	87.1							
Total length (mi)	0.20							
Total travel speed, SA (mi/h)	8.3							
Total urban street LOS	F							

APPENDIX D – ALTERNATIVE 1






- **SANDAG SERIES 11 COMBINED NORTH COUNTY MODEL FORECAST ADT VOLUME PLOT
(MCMILLIN -1 / 4-25-11)**
- **INTERSECTION LOS WORKSHEETS WITHOUT AND WITH PROJECT**
- **FAIR SHARE CALCULATIONS**
- **ARTERIAL ANALYSIS WORKSHEETS**

**SANDAG Series 11
Combined North County Model
2030 Highway Network
Daily Traffic Volumes**




City of CARLSBAD

Model Run 04/25/11
McMillin 1 - Base Circulation Element

Functional Classifications:

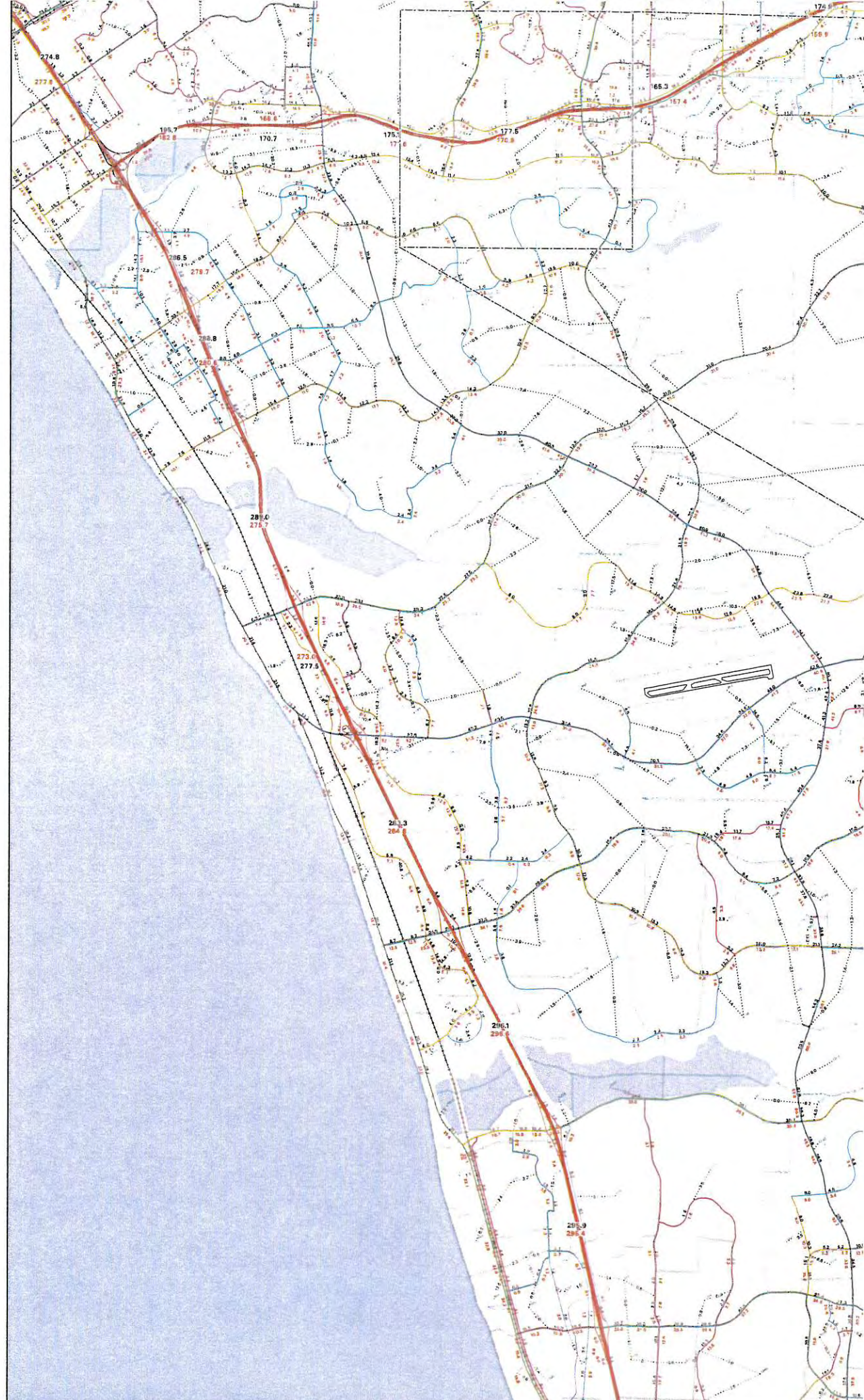
-  Freeway
-  Prime
-  Major
-  Collector
-  Local Collector
-  Rural Collector
-  Local
-  Freeway Connector
-  Ramp
-  Zone Connector
-  Light & Commuter Rail
-  Zone Boundary

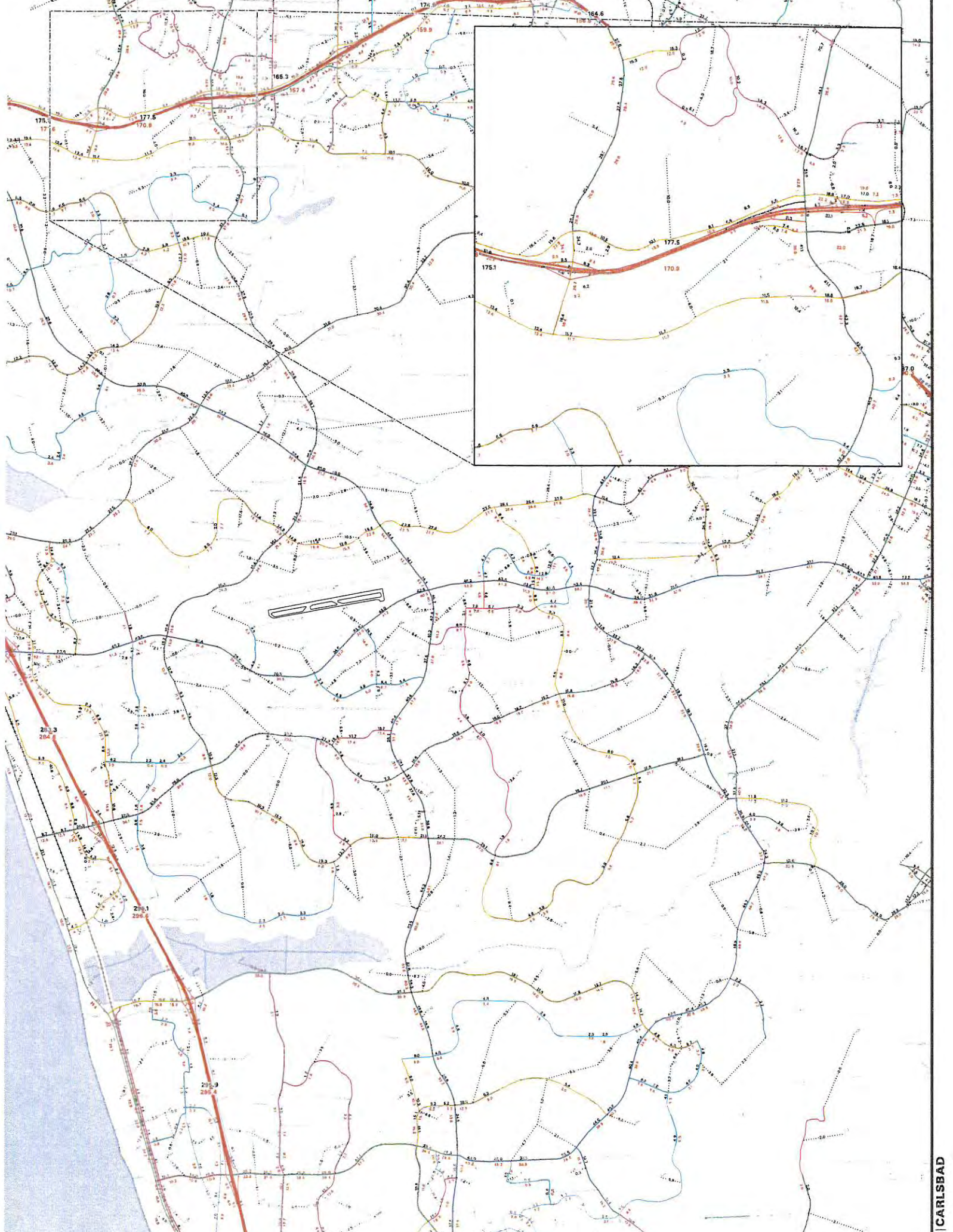
Forecasted Volumes:

-  Adjusted Volume
-  Unadjusted Volume
-  Traffic Analysis Zone



April 26, 2011





SHORT REPORT													
General Information							Site Information						
Analyst	USAI						Intersection						EL CAMINO REAL@ VISTA WAY
Agency or Co.	USAI						Area Type						All other areas
Date Performed	08/15/12						Jurisdiction						OCEANSIDE-INT.#1
Time Period	AM PEAK						Analysis Year						BO-ALT-1/NO PROJECT
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	1	2	1	2	2	0	2	3	0	2	3	0	
Lane group	L	T	R	L	TR		L	TR		L	TR		
Volume (vph)	35	70	95	380	150	95	185	1000	310	150	1725	35	
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2	
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0		
Ext. eff. green	3.0	2.0	1.2	2.0	2.0		1.2	5.0		0.8	5.8		
Arrival type	3	3	3	3	3		5	5		5	5		
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0		
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5	10	0	
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0	0	0	0		0	0		0	0		
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0		
Phasing	Excl. Left	WB Only	Thru & RT	04			Excl. Left	Thru & RT	07			08	
Timing	G = 10.3	G = 13.5	G = 17.8	G =			G = 15.5	G = 48.6	G =			G =	
	Y = 5.2	Y = 5.6	Y = 5.6	Y =			Y = 5.2	Y = 6.3	Y =			Y =	
Duration of Analysis (hrs) = 0.25						Cycle Length C = 133.6							
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	38	76	103	413	266		201	1424		163	1913		
Lane group cap.	136	446	426	720	889		352	1844		342	1946		
v/c ratio	0.28	0.17	0.24	0.57	0.30		0.57	0.77		0.48	0.98		
Green ratio	0.08	0.13	0.28	0.21	0.27		0.10	0.38		0.10	0.38		
Unif. delay d1	58.1	52.2	37.4	47.4	38.8		57.1	36.4		56.9	40.7		
Delay factor k	0.11	0.11	0.11	0.17	0.11		0.17	0.32		0.11	0.49		
Increm. delay d2	1.1	0.2	0.3	1.1	0.2		2.2	2.1		1.0	16.5		
PF factor	1.000	1.000	1.000	1.000	1.000		0.924	0.594		0.926	0.583		
Control delay	59.3	52.4	37.7	48.6	39.0		55.0	23.7		53.7	40.2		
Lane group LOS	E	D	D	D	D		E	C		D	D		
Apprch. delay	46.6			44.8			27.6			41.3			
Approach LOS	D			D			C			D			
Intersec. delay	37.2			Intersection LOS						D			

SHORT REPORT													
General Information							Site Information						
Analyst	USAI						Intersection						EL CAMINO REAL@ VISTA WAY
Agency or Co.	USAI						Area Type						All other areas
Date Performed	08/15/12						Jurisdiction						OCEANSIDE-INT.#1
Time Period	AM PEAK						Analysis Year						BO-ALT-1/WITH PROJECT
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	1	2	1	2	2	0	2	3	0	2	3	0	
Lane group	L	T	R	L	TR		L	TR		L	TR		
Volume (vph)	35	72	95	380	157	104	185	1000	310	153	1725	35	
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2	
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0		
Ext. eff. green	3.0	2.0	1.2	2.0	2.0		1.2	5.0		0.8	5.8		
Arrival type	3	3	3	3	3		5	5		5	5		
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0		
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5	10	0	
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0	0	0	0		0	0		0	0		
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0		
Phasing	Excl. Left	WB Only	Thru & RT	04			Excl. Left	Thru & RT	07			08	
Timing	G = 10.3	G = 13.5	G = 17.8	G =			G = 15.5	G = 48.6	G =			G =	
	Y = 5.2	Y = 5.6	Y = 5.6	Y =			Y = 5.2	Y = 6.3	Y =			Y =	
Duration of Analysis (hrs) = 0.25						Cycle Length C = 133.6							
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	38	78	103	413	284		201	1424		166	1913		
Lane group cap.	136	446	426	720	887		352	1844		342	1946		
v/c ratio	0.28	0.17	0.24	0.57	0.32		0.57	0.77		0.49	0.98		
Green ratio	0.08	0.13	0.28	0.21	0.27		0.10	0.38		0.10	0.38		
Unif. delay d1	58.1	52.2	37.4	47.4	39.1		57.1	36.4		56.9	40.7		
Delay factor k	0.11	0.11	0.11	0.17	0.11		0.17	0.32		0.11	0.49		
Increm. delay d2	1.1	0.2	0.3	1.1	0.2		2.2	2.1		1.1	16.5		
PF factor	1.000	1.000	1.000	1.000	1.000		0.924	0.594		0.926	0.583		
Control delay	59.3	52.4	37.7	48.6	39.3		55.0	23.7		53.8	40.2		
Lane group LOS	E	D	D	D	D		E	C		D	D		
Apprch. delay	46.7			44.8			27.6			41.3			
Approach LOS	D			D			C			D			
Intersec. delay	37.3			Intersection LOS						D			

SHORT REPORT												
General Information							Site Information					
Analyst	USAI						Intersection EL CAMINO REAL@ VISTA WAY					
Agency or Co.	USAI						Area Type All other areas					
Date Performed	08/15/12						Jurisdiction OCEANSIDE-INT.#1					
Time Period	PM PEAK						Analysis Year BO-ALT-1/NO PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	2	1	2	2	0	2	3	0	2	3	0
Lane group	L	T	R	L	TR		L	TR		L	TR	
Volume (vph)	225	295	400	310	270	170	475	1845	415	170	1465	95
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Ext. eff. green	3.0	2.0	1.2	2.0	2.0		1.2	5.0		0.8	5.8	
Arrival type	3	3	3	3	3		5	5		5	5	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5	10	0
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0		0	0		0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Phasing	Excl. Left	Thru & RT	03		04		Excl. Left	NB Only	Thru & RT	08		
Timing	G = 16.0	G = 22.3	G =		G =		G = 12.2	G = 12.8	G = 41.7	G =		
	Y = 5.2	Y = 5.6	Y =		Y =		Y = 5.2	Y = 6.3	Y = 6.3	Y =		
Duration of Analysis (hrs) = 0.25						Cycle Length C = 133.6						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	245	321	435	337	478		516	2456		185	1695	
Lane group cap.	212	566	650	386	525		731	2311		257	1672	
v/c ratio	1.16	0.57	0.67	0.87	0.91		0.71	1.06		0.72	1.01	
Green ratio	0.12	0.16	0.42	0.11	0.16		0.21	0.47		0.07	0.33	
Unif. delay d1	58.8	51.9	31.1	58.4	55.2		48.7	35.4		60.4	44.6	
Delay factor k	0.50	0.16	0.24	0.40	0.43		0.27	0.50		0.28	0.50	
Increm. delay d2	110.1	1.3	2.7	19.2	20.0		3.1	38.0		9.4	25.5	
PF factor	1.000	1.000	1.000	1.000	1.000		0.820	0.409		0.946	0.667	
Control delay	168.9	53.2	33.8	77.6	75.2		43.1	52.5		66.6	55.2	
Lane group LOS	F	D	C	E	E		D	D		E	E	
Apprch. delay	73.1			76.2			50.9			56.3		
Approach LOS	E			E			D			E		
Intersec. delay	58.8			Intersection LOS						E		

SHORT REPORT																		
General Information							Site Information											
Analyst	USAI						Intersection						EL CAMINO REAL@ VISTA WAY					
Agency or Co.	USAI						Area Type						All other areas					
Date Performed	08/15/12						Jurisdiction						OCEANSIDE-INT.#1					
Time Period	PM PEAK						Analysis Year						BO-ALT-1/WITH PROJECT					
Volume and Timing Input																		
	EB			WB			NB			SB								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
Num. of Lanes	1	2	1	2	2	0	2	3	0	2	3	0						
Lane group	L	T	R	L	TR		L	TR		L	TR							
Volume (vph)	225	303	400	310	274	175	475	1845	415	179	1465	95						
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2						
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92						
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A						
Startup lost time	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0							
Ext. eff. green	3.0	2.0	1.2	2.0	2.0		1.2	5.0		0.8	5.8							
Arrival type	3	3	3	3	3		5	5		5	5							
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0							
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5	10	0						
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0							
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N						
Parking/hr																		
Bus stops/hr	0	0	0	0	0		0	0		0	0							
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0							
Phasing	Excl. Left	Thru & RT	03			04	Excl. Left	NB Only	Thru & RT	08								
Timing	G = 16.0	G = 22.3	G =			G =	G = 12.2	G = 12.8	G = 41.7	G =								
	Y = 5.2	Y = 5.6	Y =			Y =	Y = 5.2	Y = 6.3	Y = 6.3	Y =								
Duration of Analysis (hrs) = 0.25						Cycle Length C = 133.6												
Lane Group Capacity, Control Delay, and LOS Determination																		
	EB			WB			NB			SB								
Adj. flow rate	245	329	435	337	488		516	2456		195	1695							
Lane group cap.	212	566	650	386	525		731	2311		257	1672							
v/c ratio	1.16	0.58	0.67	0.87	0.93		0.71	1.06		0.76	1.01							
Green ratio	0.12	0.16	0.42	0.11	0.16		0.21	0.47		0.07	0.33							
Unif. delay d1	58.8	52.0	31.1	58.4	55.4		48.7	35.4		60.6	44.6							
Delay factor k	0.50	0.17	0.24	0.40	0.45		0.27	0.50		0.31	0.50							
Increm. delay d2	110.1	1.5	2.7	19.2	23.2		3.1	38.0		12.3	25.5							
PF factor	1.000	1.000	1.000	1.000	1.000		0.820	0.409		0.946	0.667							
Control delay	168.9	53.5	33.8	77.6	78.6		43.1	52.5		69.7	55.2							
Lane group LOS	F	D	C	E	E		D	D		E	E							
Apprch. delay	73.1			78.2			50.9			56.7								
Approach LOS	E			E			D			E								
Intersec. delay	59.2			Intersection LOS						E								

WITH MITIGATION / ADD NB RT LANE

SHORT REPORT												
General Information						Site Information						
Analyst USAI						Intersection EL CAMINO REAL@ VISTA WAY						
Agency or Co. USAI						Area Type All other areas						
Date Performed 08/22/12						Jurisdiction OCEANSIDE-INT.#1/WITH MITIGATI						
Time Period AM PEAK						Analysis Year BO-ALT-1/NO PROJECT						
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	2	1	2	2	0	2	3	1	2	3	0
Lane group	L	T	R	L	TR		L	T	R	L	TR	
Volume (vph)	35	70	95	380	150	95	185	1000	310	150	1725	35
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	3.0	3.0	3.0	3.0	3.0		3.0	3.0	2.0	3.0	3.0	
Ext. eff. green	3.0	2.0	1.2	2.0	2.0		1.2	5.0	2.0	0.8	5.8	
Arrival type	3	3	3	3	3		5	5	5	5	5	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5	10	0
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0		0	0	0	0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Phasing	Excl. Left	WB Only	Thru & RT	04			Excl. Left	Thru & RT	07			08
Timing	G = 10.3	G = 13.5	G = 17.8	G =			G = 15.5	G = 48.6	G =			G =
	Y = 5.2	Y = 5.6	Y = 5.6	Y =			Y = 5.2	Y = 6.3	Y =			Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 133.6						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	38	76	103	413	266		201	1087	337	163	1913	
Lane group cap.	136	446	426	720	889		352	1922	563	342	1946	
v/c ratio	0.28	0.17	0.24	0.57	0.30		0.57	0.57	0.60	0.48	0.98	
Green ratio	0.08	0.13	0.28	0.21	0.27		0.10	0.38	0.36	0.10	0.38	
Unif. delay d1	58.1	52.2	37.4	47.4	38.8		57.1	32.8	34.6	56.9	40.7	
Delay factor k	0.11	0.11	0.11	0.17	0.11		0.17	0.16	0.19	0.11	0.49	
Increm. delay d2	1.1	0.2	0.3	1.1	0.2		2.2	0.4	1.8	1.0	16.5	
PF factor	1.000	1.000	1.000	1.000	1.000		0.924	0.594	0.619	0.926	0.583	
Control delay	59.3	52.4	37.7	48.6	39.0		55.0	19.9	23.2	53.7	40.2	
Lane group LOS	E	D	D	D	D		E	B	C	D	D	
Apprch. delay	46.6			44.8			24.9			41.3		
Approach LOS	D			D			C			D		
Intersec. delay	36.3			Intersection LOS						D		

MITIGATION/ADD NB RT LANE

SHORT REPORT													
General Information						Site Information							
Analyst	USAI					Intersection	EL CAMINO REAL@ VISTA WAY						
Agency or Co.	USAI					Area Type	All other areas						
Date Performed	08/22/12					Jurisdiction	OCEANSIDE-INT.#1/WITH MIT.						
Time Period	AM PEAK					Analysis Year	BO-ALT-1/WITH PROJECT						
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	1	2	1	2	2	0	2	3	1	2	3	0	
Lane group	L	T	R	L	TR		L	T	R	L	TR		
Volume (vph)	35	72	95	380	157	104	185	1000	310	153	1725	35	
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2	
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	3.0	3.0	3.0	3.0	3.0		3.0	3.0	2.0	3.0	3.0		
Ext. eff. green	3.0	2.0	1.2	2.0	2.0		1.2	5.0	2.0	0.8	5.8		
Arrival type	3	3	3	3	3		5	5	5	5	5		
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0		
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5	10	0	
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0	12.0	12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0	0	0	0		0	0	0	0	0		
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0		
Phasing	Excl. Left	WB Only	Thru & RT	04			Excl. Left	Thru & RT	07			08	
Timing	G = 10.3	G = 13.5	G = 17.8	G =			G = 15.5	G = 48.6	G =			G =	
	Y = 5.2	Y = 5.6	Y = 5.6	Y =			Y = 5.2	Y = 6.3	Y =			Y =	
Duration of Analysis (hrs) = 0.25						Cycle Length C = 133.6							
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	38	78	103	413	284		201	1087	337	166	1913		
Lane group cap.	136	446	426	720	887		352	1922	563	342	1946		
v/c ratio	0.28	0.17	0.24	0.57	0.32		0.57	0.57	0.60	0.49	0.98		
Green ratio	0.08	0.13	0.28	0.21	0.27		0.10	0.38	0.36	0.10	0.38		
Unif. delay d1	58.1	52.2	37.4	47.4	39.1		57.1	32.8	34.6	56.9	40.7		
Delay factor k	0.11	0.11	0.11	0.17	0.11		0.17	0.16	0.19	0.11	0.49		
Increm. delay d2	1.1	0.2	0.3	1.1	0.2		2.2	0.4	1.8	1.1	16.5		
PF factor	1.000	1.000	1.000	1.000	1.000		0.924	0.594	0.619	0.926	0.583		
Control delay	59.3	52.4	37.7	48.6	39.3		55.0	19.9	23.2	53.8	40.2		
Lane group LOS	E	D	D	D	D		E	B	C	D	D		
Apprch. delay	46.7			44.8			24.9			41.3			
Approach LOS	D			D			C			D			
Intersec. delay	36.3			Intersection LOS						D			

WITH MITIGATION

ADD
NB
RT
LANE

SHORT REPORT												
General Information						Site Information						
Analyst USAI						Intersection EL CAMINO REAL@ VISTA WAY						
Agency or Co. USAI						Area Type All other areas						
Date Performed 08/22/12						Jurisdiction OCEANSIDE-INT.#1/WITH MIT.						
Time Period PM PEAK						Analysis Year BO-ALT-1/NO PROJECT						
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	2	1	2	2	0	2	3	1	2	3	0
Lane group	L	T	R	L	TR		L	T	R	L	TR	
Volume (vph)	225	295	400	310	270	170	475	1845	415	170	1465	95
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	3.0	3.0	3.0	3.0	3.0		3.0	3.0	2.0	3.0	3.0	
Ext. eff. green	3.0	2.0	1.2	2.0	2.0		1.2	5.0	2.0	0.8	5.8	
Arrival type	3	3	3	3	3		5	5	5	5	5	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5	10	0
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0		0	0	0	0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Phasing	Excl. Left	Thru & RT	03		04		Excl. Left	NB Only	Thru & RT	08		
Timing	G = 16.0	G = 22.3	G =		G =		G = 12.2	G = 12.8	G = 41.7	G =		
	Y = 5.2	Y = 5.6	Y =		Y =		Y = 5.2	Y = 6.3	Y = 6.3	Y =		
Duration of Analysis (hrs) = 0.25						Cycle Length C = 133.6						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	245	321	435	337	478		516	2005	451	185	1695	
Lane group cap.	212	566	650	386	525		731	2385	706	257	1672	
v/c ratio	1.16	0.57	0.67	0.87	0.91		0.71	0.84	0.64	0.72	1.01	
Green ratio	0.12	0.16	0.42	0.11	0.16		0.21	0.47	0.46	0.07	0.33	
Unif. delay d1	58.8	51.9	31.1	58.4	55.2		48.7	31.0	28.0	60.4	44.6	
Delay factor k	0.50	0.16	0.24	0.40	0.43		0.27	0.38	0.22	0.28	0.50	
Increment. delay d2	110.1	1.3	2.7	19.2	20.0		3.1	2.9	1.9	9.4	25.5	
PF factor	1.000	1.000	1.000	1.000	1.000		0.820	0.409	0.443	0.946	0.667	
Control delay	168.9	53.2	33.8	77.6	75.2		43.1	15.6	14.3	66.6	55.2	
Lane group LOS	F	D	C	E	E		D	B	B	E	E	
Approch. delay	73.1			76.2			20.1			56.3		
Approach LOS	E			E			C			E		
Intersec. delay	45.1			Intersection LOS						D		

MITIGATION/ADD NB RT LANE

SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	EL CAMINO REAL@ VISTA WAY					
Agency or Co.	USAI					Area Type	All other areas					
Date Performed	08/22/12					Jurisdiction	OCEANSIDE-INT.#1/WITH MIT.					
Time Period	PM PEAK					Analysis Year	BO-ALT-1/WITH PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	2	1	2	2	0	2	3	1	2	3	0
Lane group	L	T	R	L	TR		L	T	R	L	TR	
Volume (vph)	225	303	400	310	274	175	475	1845	415	179	1465	95
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	3.0	3.0	3.0	3.0	3.0		3.0	3.0	2.0	3.0	3.0	
Ext. eff. green	3.0	2.0	1.2	2.0	2.0		1.2	5.0	2.0	0.8	5.8	
Arrival type	3	3	3	3	3		5	5	5	5	5	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5	10	0
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0		0	0	0	0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Phasing	Excl. Left	Thru & RT	03		04		Excl. Left	NB Only	Thru & RT	08		
Timing	G = 16.0	G = 22.3	G =		G =		G = 12.2	G = 12.8	G = 41.7	G =		
	Y = 5.2	Y = 5.6	Y =		Y =		Y = 5.2	Y = 6.3	Y = 6.3	Y =		
Duration of Analysis (hrs) = 0.25						Cycle Length C = 133.6						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	245	329	435	337	488		516	2005	451	195	1695	
Lane group cap.	212	566	650	386	525		731	2385	706	257	1672	
v/c ratio	1.16	0.58	0.67	0.87	0.93		0.71	0.84	0.64	0.76	1.01	
Green ratio	0.12	0.16	0.42	0.11	0.16		0.21	0.47	0.46	0.07	0.33	
Unif. delay d1	58.8	52.0	31.1	58.4	55.4		48.7	31.0	28.0	60.6	44.6	
Delay factor k	0.50	0.17	0.24	0.40	0.45		0.27	0.38	0.22	0.31	0.50	
Increm. delay d2	110.1	1.5	2.7	19.2	23.2		3.1	2.9	1.9	12.3	25.5	
PF factor	1.000	1.000	1.000	1.000	1.000		0.820	0.409	0.443	0.946	0.667	
Control delay	168.9	53.5	33.8	77.6	78.6		43.1	15.6	14.3	69.7	55.2	
Lane group LOS	F	D	C	E	E		D	B	B	E	E	
Apprch. delay	73.1			78.2			20.1			56.7		
Approach LOS	E			E			C			E		
Intersec. delay	45.6			Intersection LOS						D		

SHORT REPORT													
General Information						Site Information							
Analyst	USAI					Intersection	EL CAMINO REAL@ SR-78WB RAMPS						
Agency or Co.	USAI					Area Type	All other areas						
Date Performed	08/15/12					Jurisdiction	OCEANSIDE-INT.#2						
Time Period	AM PEAK					Analysis Year	BO.ALT.-1/NO PROJECT						
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	0	0	0	1	1	1	2	3	0	0	3	1	
Lane group				L	LTR	R	L	T			T	R	
Volume (vph)				610	5	560	140	935			1750	450	
% Heavy veh				2	2	2	2	2			2	2	
PHF				0.92	0.92	0.92	0.92	0.92			0.92	0.92	
Actuated (P/A)				A	A	A	A	A			A	A	
Startup lost time				3.0	3.0	3.0	3.0	3.0			3.0	3.0	
Ext. eff. green				2.0	2.0	2.0	2.0	2.0			2.0	2.0	
Arrival type				3	3	3	5	5			5	5	
Unit Extension				3.0	3.0	3.0	3.0	3.0			3.0	3.0	
Ped/Bike/RTOR Volume	10			10		75				10	5	250	
Lane Width				12.0	12.0	12.0	12.0	12.0			12.0	12.0	
Parking/Grade/Parking	N		N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr				0	0	0	0	0			0	0	
Unit Extension				3.0	3.0	3.0	3.0	3.0			3.0	3.0	
Phasing	WB Only	02	03	04	NB Only	Thru & RT	07	08					
Timing	G = 31.0	G =	G =	G =	G = 13.7	G = 39.0	G =	G =					
	Y = 5.1	Y =	Y =	Y =	Y = 4.2	Y = 7	Y =	Y =					
Duration of Analysis (hrs) = 0.25						Cycle Length C = 100.0							
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate				464	362	369	152	1016			1902	217	
Lane group cap.				531	508	475	436	2836			1928	588	
v/c ratio				0.87	0.71	0.78	0.35	0.36			0.99	0.37	
Green ratio				0.30	0.30	0.30	0.13	0.56			0.38	0.38	
Unif. delay d1				33.2	31.2	31.9	39.9	12.2			30.7	22.4	
Delay factor k				0.40	0.28	0.33	0.11	0.11			0.49	0.11	
Increm. delay d2				14.9	4.7	8.0	0.5	0.1			17.3	0.4	
PF factor				1.000	1.000	1.000	0.903	0.155			0.591	0.591	
Control delay				48.1	35.8	39.9	36.5	2.0			35.5	13.6	
Lane group LOS				D	D	D	D	A			D	B	
Apprch. delay				41.9			6.5			33.3			
Approach LOS				D			A			C			
Intersec. delay	28.6			Intersection LOS							C		

SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	EL CAMINO REAL@ SR-78WB RAMPS					
Agency or Co.	USAI					Area Type	All other areas					
Date Performed	08/15/12					Jurisdiction	OCEANSIDE-INT.#2					
Time Period	AM PEAK					Analysis Year	BO.ALT.-1/WITH PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	0	0	1	1	1	2	3	0	0	3	1
Lane group				L	LTR	R	L	T			T	R
Volume (vph)				610	5	560	140	935			1750	450
% Heavy veh				2	2	2	2	2			2	2
PHF				0.92	0.92	0.92	0.92	0.92			0.92	0.92
Actuated (P/A)				A	A	A	A	A			A	A
Startup lost time				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Ext. eff. green				2.0	2.0	2.0	2.0	2.0			2.0	2.0
Arrival type				3	3	3	5	5			5	5
Unit Extension				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Ped/Bike/RTOR Volume	10			10		75				10	5	250
Lane Width				12.0	12.0	12.0	12.0	12.0			12.0	12.0
Parking/Grade/Parking	N		N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr				0	0	0	0	0			0	0
Unit Extension				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Phasing	WB Only	02	03	04	NB Only	Thru & RT	07	08				
Timing	G = 31.0	G =	G =	G =	G = 13.7	G = 39.0	G =	G =				
	Y = 5.1	Y =	Y =	Y =	Y = 4.2	Y = 7	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 100.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate				464	362	369	152	1016			1902	217
Lane group cap.				531	508	475	436	2836			1928	588
v/c ratio				0.87	0.71	0.78	0.35	0.36			0.99	0.37
Green ratio				0.30	0.30	0.30	0.13	0.56			0.38	0.38
Unif. delay d1				33.2	31.2	31.9	39.9	12.2			30.7	22.4
Delay factor k				0.40	0.28	0.33	0.11	0.11			0.49	0.11
Increm. delay d2				14.9	4.7	8.0	0.5	0.1			17.3	0.4
PF factor				1.000	1.000	1.000	0.903	0.155			0.591	0.591
Control delay				48.1	35.8	39.9	36.5	2.0			35.5	13.6
Lane group LOS				D	D	D	D	A			D	B
Apprch. delay				41.9			6.5			33.3		
Approach LOS				D			A			C		
Intersec. delay	28.6			Intersection LOS						C		

SHORT REPORT													
General Information						Site Information							
Analyst	USAI					Intersection	EL CAMINO REAL@ SR-78WB RAMPS						
Agency or Co.	USAI					Area Type	All other areas						
Date Performed	08/15/12					Jurisdiction	OCEANSIDE-INT.#2						
Time Period	PM PEAK					Analysis Year	BO.ALT.-1/NO PROJECT						
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	0	0	0	1	1	1	2	3	0	0	3	1	
Lane group				L	LTR	R	L	T			T	R	
Volume (vph)				695	10	750	335	2045			1615	560	
% Heavy veh				2	2	2	2	2			2	2	
PHF				0.92	0.92	0.92	0.92	0.92			0.92	0.92	
Actuated (P/A)				A	A	A	A	A			A	A	
Startup lost time				3.0	3.0	3.0	3.0	3.0			3.0	3.0	
Ext. eff. green				2.0	2.0	2.0	2.0	2.0			2.0	2.0	
Arrival type				3	3	3	5	5			5	5	
Unit Extension				3.0	3.0	3.0	3.0	3.0			3.0	3.0	
Ped/Bike/RTOR Volume	10			10		0				10	5	0	
Lane Width				12.0	12.0	12.0	12.0	12.0			12.0	12.0	
Parking/Grade/Parking	N		N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr				0	0	0	0	0			0	0	
Unit Extension				3.0	3.0	3.0	3.0	3.0			3.0	3.0	
Phasing	WB Only	02	03	04	NB Only	Thru & RT	07	08					
Timing	G = 31.0	G =	G =	G =	G = 13.7	G = 39.0	G =	G =					
	Y = 5.1	Y =	Y =	Y =	Y = 4.2	Y = 7	Y =	Y =					
Duration of Analysis (hrs) = 0.25						Cycle Length C = 100.0							
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate				559	451	571	364	2223			1755	609	
Lane group cap.				531	502	475	436	2836			1928	588	
v/c ratio				1.05	0.90	1.20	0.83	0.78			0.91	1.04	
Green ratio				0.30	0.30	0.30	0.13	0.56			0.38	0.38	
Unif. delay d1				35.0	33.5	35.0	42.6	17.3			29.4	31.0	
Delay factor k				0.50	0.42	0.50	0.37	0.33			0.43	0.50	
Increm. delay d2				53.7	18.9	109.6	13.2	1.5			6.9	46.7	
PF factor				1.000	1.000	1.000	0.903	0.155			0.591	0.591	
Control delay				88.7	52.4	144.6	51.7	4.2			24.3	65.0	
Lane group LOS				F	D	F	D	A			C	E	
Apprch. delay				98.5			10.9			34.8			
Approach LOS				F			B			C			
Intersec. delay	40.7			Intersection LOS							D		

SHORT REPORT												
General Information						Site Information						
Analyst USA/ Agency or Co. USA/ Date Performed 08/15/12 Time Period PM PEAK						Intersection EL CAMINO REAL@ SR-78WB RAMPS Area Type All other areas Jurisdiction OCEANSIDE-INT.#2 Analysis Year BO.ALT.-1/WITH PROJECT						
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	0	0	1	1	1	2	3	0	0	3	1
Lane group				L	LTR	R	L	T			T	R
Volume (vph)				695	10	750	335	2045			1615	560
% Heavy veh.				2	2	2	2	2			2	2
PHF				0.92	0.92	0.92	0.92	0.92			0.92	0.92
Actuated (P/A)				A	A	A	A	A			A	A
Startup lost time				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Ext. eff. green				2.0	2.0	2.0	2.0	2.0			2.0	2.0
Arrival type				3	3	3	5	5			5	5
Unit Extension				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Ped/Bike/RTOR Volume	10			10		0				10	5	0
Lane Width				12.0	12.0	12.0	12.0	12.0			12.0	12.0
Parking/Grade/Parking	N		N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr				0	0	0	0	0			0	0
Unit Extension				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Phasing	WB Only	02	03	04	NB Only	Thru & RT	07	08				
Timing	G = 31.0	G =	G =	G =	G = 13.7	G = 39.0	G =	G =				
	Y = 5.1	Y =	Y =	Y =	Y = 4.2	Y = 7	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 100.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate				559	451	571	364	2223			1755	609
Lane group cap.				531	502	475	436	2836			1928	588
v/c ratio				1.05	0.90	1.20	0.83	0.78			0.91	1.04
Green ratio				0.30	0.30	0.30	0.13	0.56			0.38	0.38
Unif. delay d1				35.0	33.5	35.0	42.6	17.3			29.4	31.0
Delay factor k				0.50	0.42	0.50	0.37	0.33			0.43	0.50
Increm. delay d2				53.7	18.9	109.6	13.2	1.5			6.9	46.7
PF factor				1.000	1.000	1.000	0.903	0.155			0.591	0.591
Control delay				88.7	52.4	144.6	51.7	4.2			24.3	65.0
Lane group LOS				F	D	F	D	A			C	E
Apprch. delay				98.5			10.9			34.8		
Approach LOS				F			B			C		
Intersec. delay	40.7			Intersection LOS						D		

SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	EL CAMINO REAL@ SR-78EB RAMPS					
Agency or Co.	USAI					Area Type	All other areas					
Date Performed	08/17/12					Jurisdiction	OCEANSIDE-INT#3					
Time Period	AM PEAK					Analysis Year	BO.ALT-1/NO PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	0	1	0	0	0	0	3	1	2	3	0
Lane group	L		R					T	R	L	T	
Volume (vph)	340		170					735	440	615	1745	
% Heavy veh	2		2					2	2	2	2	
PHF	0.92		0.92					0.92	0.92	0.92	0.92	
Actuated (P/A)	A		A					A	A	A	A	
Startup lost time	3.0		3.0					3.0	3.0	3.0	3.0	
Ext. eff. green	2.0		2.0					2.0	2.0	2.0	2.0	
Arrival type	3		3					5	5	5	5	
Unit Extension	3.0		3.0					3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	5		0	5			5	10	0			
Lane Width	12.0		12.0					12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N		N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0		0					0	0	0	0	
Unit Extension	3.0		3.0					3.0	3.0	3.0	3.0	
Phasing	EB Only	02	03	04	SB Only	Thru & RT	07	08				
Timing	G = 20.0	G =	G =	G =	G = 38.0	G = 50.2	G =	G =				
	Y = 5.1	Y =	Y =	Y =	Y = 4.7	Y = 7	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 125.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	370		185				799	478	668	1897		
Lane group cap.	522		241				1997	610	1017	3730		
v/c ratio	0.71		0.77				0.40	0.78	0.66	0.51		
Green ratio	0.15		0.15				0.39	0.39	0.30	0.74		
Unif. delay d1	50.4		50.9				27.3	33.2	38.5	7.0		
Delay factor k	0.27		0.32				0.11	0.33	0.23	0.12		
Increm. delay d2	4.4		13.9				0.1	6.6	1.6	0.1		
PF factor	1.000		1.000				0.567	0.567	0.720	0.189		
Control delay	54.8		64.8				15.6	25.5	29.2	1.4		
Lane group LOS	D		E				B	C	C	A		
Apprch. delay	58.1						19.3			8.7		
Approach LOS	E						B			A		
Intersec. delay	18.0			Intersection LOS						B		

SHORT REPORT													
General Information						Site Information							
Analyst	USAI					Intersection	EL CAMINO REAL@ SR-78EB RAMPS						
Agency or Co.	USAI					Area Type	All other areas						
Date Performed	08/17/12					Jurisdiction	OCEANSIDE-INT#3						
Time Period	AM PEAK					Analysis Year	BO.ALT-1/WITH PROJECT						
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	2	0	1	0	0	0	0	3	1	2	3	0	
Lane group	L		R					T	R	L	T		
Volume (vph)	340		170					735	440	615	1745		
% Heavy veh	2		2					2	2	2	2		
PHF	0.92		0.92					0.92	0.92	0.92	0.92		
Actuated (P/A)	A		A					A	A	A	A		
Startup lost time	3.0		3.0					3.0	3.0	3.0	3.0		
Ext. eff. green	2.0		2.0					2.0	2.0	2.0	2.0		
Arrival type	3		3					5	5	5	5		
Unit Extension	3.0		3.0					3.0	3.0	3.0	3.0		
Ped/Bike/RTOR Volume	5		0	5			5	10	0				
Lane Width	12.0		12.0					12.0	12.0	12.0	12.0		
Parking/Grade/Parking	N	0	N	N		N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0		0					0	0	0	0		
Unit Extension	3.0		3.0					3.0	3.0	3.0	3.0		
Phasing	EB Only	02	03	04	SB Only	Thru & RT	07	08					
Timing	G = 20.0	G =	G =	G =	G = 38.0	G = 50.2	G =	G =					
	Y = 5.1	Y =	Y =	Y =	Y = 4.7	Y = 7	Y =	Y =					
Duration of Analysis (hrs) = 0.25						Cycle Length C = 125.0							
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	370		185					799	478	668	1897		
Lane group cap.	522		241					1997	610	1017	3730		
v/c ratio	0.71		0.77					0.40	0.78	0.66	0.51		
Green ratio	0.15		0.15					0.39	0.39	0.30	0.74		
Unif. delay d1	50.4		50.9					27.3	33.2	38.5	7.0		
Delay factor k	0.27		0.32					0.11	0.33	0.23	0.12		
Increm. delay d2	4.4		13.9					0.1	6.6	1.6	0.1		
PF factor	1.000		1.000					0.567	0.567	0.720	0.189		
Control delay	54.8		64.8					15.6	25.5	29.2	1.4		
Lane group LOS	D		E					B	C	C	A		
Apprch. delay	58.1						19.3			8.7			
Approach LOS	E						B			A			
Intersec. delay	18.0			Intersection LOS						B			

SHORT REPORT												
General Information						Site Information						
Analyst USAI						Intersection EL CAMINO REAL@ SR-78EB RAMPS						
Agency or Co. USAI						Area Type All other areas						
Date Performed 08/17/12						Jurisdiction OCEANSIDE--INT#3						
Time Period PM PEAK						Analysis Year BO.ALT-1/NO PROJECT						
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	0	1	0	0	0	0	3	1	2	3	0
Lane group	L		R					T	R	L	T	
Volume (vph)	650		210					1730	775	660	1650	
% Heavy veh	2		2					2	2	2	2	
PHF	0.92		0.92					0.92	0.92	0.92	0.92	
Actuated (P/A)	A		A					A	A	A	A	
Startup lost time	3.0		3.0					3.0	3.0	3.0	3.0	
Ext. eff. green	2.0		2.0					2.0	2.0	2.0	2.0	
Arrival type	3		3					5	5	5	5	
Unit Extension	3.0		3.0					3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	5		0	5			5	10	80			
Lane Width	12.0		12.0					12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N		N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0		0					0	0	0	0	
Unit Extension	3.0		3.0					3.0	3.0	3.0	3.0	
Phasing	EB Only	02	03	04	SB Only	Thru & RT	07	08				
Timing	G = 23.0	G =	G =	G =	G = 31.0	G = 54.2	G =	G =				
	Y = 5.1	Y =	Y =	Y =	Y = 4.7	Y = 7	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 125.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	707		228					1880	755	717	1793	
Lane group cap.	605		279					2159	660	825	3609	
v/c ratio	1.17		0.82					0.87	1.14	0.87	0.50	
Green ratio	0.18		0.18					0.43	0.43	0.24	0.71	
Unif. delay d1	51.5		49.6					32.8	35.9	45.6	8.1	
Delay factor k	0.50		0.36					0.40	0.50	0.40	0.11	
Increm. delay d2	92.7		17.1					4.2	81.9	9.9	0.1	
PF factor	1.000		1.000					0.506	0.506	0.789	0.173	
Control delay	144.2		66.6					20.8	100.1	45.9	1.5	
Lane group LOS	F		E					C	F	D	A	
Apprch. delay	125.3						43.5			14.2		
Approach LOS	F						D			B		
Intersec. delay	44.0			Intersection LOS						D		

SHORT REPORT												
General Information						Site Information						
Analyst USAI Agency or Co. USAI Date Performed 08/17/12 Time Period PM PEAK						Intersection EL CAMINO REAL@ SR-78EB RAMPS Area Type All other areas Jurisdiction OCEANSIDE--INT#3 Analysis Year BO.ALT-1/WITH PROJECT						
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	0	1	0	0	0	0	3	1	2	3	0
Lane group	L		R					T	R	L	T	
Volume (vph)	650		210					1730	775	660	1650	
% Heavy veh	2		2					2	2	2	2	
PHF	0.92		0.92					0.92	0.92	0.92	0.92	
Actuated (P/A)	A		A					A	A	A	A	
Startup lost time	3.0		3.0					3.0	3.0	3.0	3.0	
Ext. eff. green	2.0		2.0					2.0	2.0	2.0	2.0	
Arrival type	3		3					5	5	5	5	
Unit Extension	3.0		3.0					3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	5		0	5			5	10	80			
Lane Width	12.0		12.0					12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N		N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0		0					0	0	0	0	
Unit Extension	3.0		3.0					3.0	3.0	3.0	3.0	
Phasing	EB Only	02	03	04	SB Only	Thru & RT	07	08				
Timing	G = 23.0	G =	G =	G =	G = 31.0	G = 54.2	G =	G =				
	Y = 5.1	Y =	Y =	Y =	Y = 4.7	Y = 7	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 125.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	707		228					1880	755	717	1793	
Lane group cap.	605		279					2159	660	825	3609	
v/c ratio	1.17		0.82					0.87	1.14	0.87	0.50	
Green ratio	0.18		0.18					0.43	0.43	0.24	0.71	
Unif. delay d1	51.5		49.6					32.8	35.9	45.6	8.1	
Delay factor k	0.50		0.36					0.40	0.50	0.40	0.11	
Increm. delay d2	92.7		17.1					4.2	81.9	9.9	0.1	
PF factor	1.000		1.000					0.506	0.506	0.789	0.173	
Control delay	144.2		66.6					20.8	100.1	45.9	1.5	
Lane group LOS	F		E					C	F	D	A	
Apprch. delay	125.3						43.5			14.2		
Approach LOS	F						D			B		
Intersec. delay	44.0			Intersection LOS						D		

SHORT REPORT													
General Information							Site Information						
Analyst	USAI						Intersection						EL CAMINO REAL@ PLAZA
Agency or Co.	USAI						Area Type						All other areas
Date Performed	04/29/12						Jurisdiction						CARLSBAD
Time Period	AM PEAK						Analysis Year						BO.ALT.-1/NO PROJECT
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	1	1	1	1	1	1	2	3	0	2	3	0	
Lane group	L	LT	R	L	LT	R	L	TR		L	TR		
Volume (vph)	15	5	5	45	10	85	30	1075	46	220	1475	170	
% Heavy veh	1	1	1	1	1	1	1	2	1	1	2	1	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0		
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0		
Arrival type	4	4	4	4	4	4	5	5		5	5		
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		
Ped/Bike/RTOR Volume	5	5	0	5	5	0	5	5	0	5	5	0	
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0	0	0	0	0	0	0		0	0		
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		
Phasing	EB Only	WB Only	03	04	Excl. Left	Thru & RT	07	08					
Timing	G = 10.0	G = 10.0	G =	G =	G = 14.0	G = 65.0	G =	G =					
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 6	Y =	Y =					
Duration of Analysis (hrs) = 0.25							Cycle Length C = 120.0						
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	16	5	5	40	18	89	32	1180		232	1732		
Lane group cap.	149	157	309	149	154	373	405	2731		405	2704		
v/c ratio	0.11	0.03	0.02	0.27	0.12	0.24	0.08	0.43		0.57	0.64		
Green ratio	0.08	0.08	0.20	0.08	0.08	0.24	0.12	0.54		0.12	0.54		
Unif. delay d1	50.9	50.6	38.5	51.6	50.9	36.6	47.3	16.5		50.2	19.3		
Delay factor k	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11		0.17	0.22		
Increm. delay d2	0.3	0.1	0.0	1.0	0.3	0.3	0.1	0.1		2.0	0.5		
PF factor	1.000	1.000	1.000	1.000	1.000	1.000	0.912	0.212		0.912	0.212		
Control delay	51.2	50.6	38.5	52.5	51.3	36.9	43.2	3.6		47.7	4.6		
Lane group LOS	D	D	D	D	D	D	D	A		D	A		
Apprch. delay	48.7			42.9			4.6			9.7			
Approach LOS	D			D			A			A			
Intersec. delay	9.6			Intersection LOS						A			

SHORT REPORT													
General Information							Site Information						
Analyst	USAI						Intersection						EL CAMINO REAL@ PLAZA
Agency or Co.	USAI						Area Type						All other areas
Date Performed	04/29/12						Jurisdiction						CARLSBAD
Time Period	AM PEAK						Analysis Year						BO.ALT.-1/WITH PROJECT
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	1	1	1	1	1	1	2	3	0	2	3	0	
Lane group	L	LT	R	L	LT	R	L	TR		L	TR		
Volume (vph)	15	5	6	46	10	85	31	1075	46	220	1475	170	
% Heavy veh	1	1	1	1	1	1	1	2	1	1	2	1	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0		
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0		
Arrival type	4	4	4	4	4	4	5	5		5	5		
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		
Ped/Bike/RTOR Volume	5	5	0	5	5	0	5	5	0	5	5	0	
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0	0	0	0	0	0	0		0	0		
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		
Phasing	EB Only	WB Only	03	04	Excl. Left	Thru & RT	07	08					
Timing	G = 10.0	G = 10.0	G =	G =	G = 14.0	G = 65.0	G =	G =					
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 6	Y =	Y =					
Duration of Analysis (hrs) = 0.25						Cycle Length C = 120.0							
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	16	5	6	41	18	89	33	1180		232	1732		
Lane group cap.	149	157	309	149	154	373	405	2731		405	2704		
v/c ratio	0.11	0.03	0.02	0.28	0.12	0.24	0.08	0.43		0.57	0.64		
Green ratio	0.08	0.08	0.20	0.08	0.08	0.24	0.12	0.54		0.12	0.54		
Unif. delay d1	50.9	50.6	38.5	51.6	50.9	36.6	47.3	16.5		50.2	19.3		
Delay factor k	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11		0.17	0.22		
Increm. delay d2	0.3	0.1	0.0	1.0	0.3	0.3	0.1	0.1		2.0	0.5		
PF factor	1.000	1.000	1.000	1.000	1.000	1.000	0.912	0.212		0.912	0.212		
Control delay	51.2	50.6	38.6	52.6	51.3	36.9	43.2	3.6		47.7	4.6		
Lane group LOS	D	D	D	D	D	D	D	A		D	A		
Apprch. delay	48.3			43.0			4.7			9.7			
Approach LOS	D			D			A			A			
Intersec. delay	9.7			Intersection LOS						A			

SHORT REPORT																		
General Information							Site Information											
Analyst	USAI						Intersection						EL CAMINO REAL@ PLAZA DR.					
Agency or Co.	USAI						Area Type						All other areas					
Date Performed	04/29/12						Jurisdiction						CARLSBAD					
Time Period	PM PEAK						Analysis Year						BO.ALT.-1/NO PROJECT					
Volume and Timing Input																		
	EB			WB			NB			SB								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
Num. of Lanes	1	1	1	1	1	1	2	3	0	2	3	0						
Lane group	L	LT	R	L	LT	R	L	TR		L	TR							
Volume (vph)	330	85	125	145	70	205	165	1825	75	360	1295	170						
% Heavy veh	1	1	1	1	1	1	1	2	1	1	2	1						
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95						
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A						
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0							
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0							
Arrival type	4	4	4	4	4	4	5	5		5	5							
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0							
Ped/Bike/RTOR Volume	5	5	0	5	5	0	5	5	0	5	5	0						
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0							
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N						
Parking/hr																		
Bus stops/hr	0	0	0	0	0	0	0	0		0	0							
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0							
Phasing	EB Only	WB Only	03	04	Excl. Left	Thru & RT	07	08										
Timing	G = 25.0	G = 18.0	G =	G =	G = 16.0	G = 50.0	G =	G =										
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 6	Y =	Y =										
Duration of Analysis (hrs) = 0.25							Cycle Length C = 130.0											
Lane Group Capacity, Control Delay, and LOS Determination																		
	EB			WB			NB			SB								
Adj. flow rate	215	221	132	107	120	216	174	2000		379	1542							
Lane group cap.	344	351	493	247	256	467	427	1939		427	1916							
v/c ratio	0.63	0.63	0.27	0.43	0.47	0.46	0.41	1.03		0.89	0.80							
Green ratio	0.19	0.19	0.32	0.14	0.14	0.30	0.12	0.38		0.12	0.38							
Unif. delay d1	48.2	48.2	33.3	51.3	51.6	37.0	52.6	40.0		56.1	35.7							
Delay factor k	0.21	0.21	0.11	0.11	0.11	0.11	0.11	0.50		0.41	0.35							
Increm. delay d2	3.5	3.6	0.3	1.2	1.4	0.7	0.6	29.0		19.7	2.6							
PF factor	1.000	1.000	0.973	1.000	1.000	0.986	0.906	0.583		0.906	0.583							
Control delay	51.7	51.8	32.7	52.5	53.0	37.2	48.3	52.3		70.6	23.4							
Lane group LOS	D	D	C	D	D	D	D	D		E	C							
Apprch. delay	47.4			45.2			52.0			32.7								
Approach LOS	D			D			D			C								
Intersec. delay	43.6			Intersection LOS						D								

SHORT REPORT													
General Information							Site Information						
Analyst	USAI						Intersection						EL CAMINO REAL@ PLAZA
Agency or Co.	USAI						Area Type						All other areas
Date Performed	04/29/12						Jurisdiction						CARLSBAD
Time Period	PM PEAK						Analysis Year						BO.ALT.-1/WITH PROJECT
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	1	1	1	1	1	1	2	3	0	2	3	0	
Lane group	L	LT	R	L	LT	R	L	TR		L	TR		
Volume (vph)	330	85	126	145	70	205	166	1825	76	360	1295	170	
% Heavy veh	1	1	1	1	1	1	1	2	1	1	2	1	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0		
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0		
Arrival type	4	4	4	4	4	4	5	5		5	5		
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		
Ped/Bike/RTOR Volume	5	5	0	5	5	0	5	5	0	5	5	0	
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0	0	0	0	0	0	0		0	0		
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		
Phasing	EB Only	WB Only	03	04	Excl. Left	Thru & RT	07	08					
Timing	G = 25.0	G = 18.0	G =	G =	G = 16.0	G = 50.0	G =	G =					
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 6	Y =	Y =					
Duration of Analysis (hrs) = 0.25							Cycle Length C = 130.0						
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	215	221	133	107	120	216	175	2001		379	1542		
Lane group cap.	344	351	493	247	256	467	427	1939		427	1916		
v/c ratio	0.63	0.63	0.27	0.43	0.47	0.46	0.41	1.03		0.89	0.80		
Green ratio	0.19	0.19	0.32	0.14	0.14	0.30	0.12	0.38		0.12	0.38		
Unif. delay d1	48.2	48.2	33.3	51.3	51.6	37.0	52.6	40.0		56.1	35.7		
Delay factor k	0.21	0.21	0.11	0.11	0.11	0.11	0.11	0.50		0.41	0.35		
Increm. delay d2	3.5	3.6	0.3	1.2	1.4	0.7	0.6	29.2		19.7	2.6		
PF factor	1.000	1.000	0.973	1.000	1.000	0.986	0.906	0.583		0.906	0.583		
Control delay	51.7	51.8	32.7	52.5	53.0	37.2	48.4	52.5		70.6	23.4		
Lane group LOS	D	D	C	D	D	D	D	D		E	C		
Approch. delay	47.3			45.2			52.2			32.7			
Approach LOS	D			D			D			C			
Intersec. delay	43.7			Intersection LOS						D			

SHORT REPORT													
General Information							Site Information						
Analyst	USAI						Intersection	EL CAMINO REAL@					
Agency or Co.	USAI							MARRON RD.					
Date Performed	04/29/12						Area Type	All other areas					
Time Period	AM PEAK						Jurisdiction	CARLSBAD					
							Analysis Year	BO.ALT.-1/NO PROJECT					
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	1	2	0	1	2	0	2	3	0	2	3	0	
Lane group	L	TR		L	TR		L	TR		L	TR		
Volume (vph)	55	60	50	105	45	115	50	980	35	95	1330	100	
% Heavy veh	1	1	1	1	1	1	1	2	1	1	2	1	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0		
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0		
Arrival type	4	4		4	4		5	5		5	5		
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0		
Ped/Bike/RTOR Volume	5		0	5		0	5	5	0	5	5	0	
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0		0	0		0	0		0	0		
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0		
Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08					
Timing	G = 12.0	G = 12.0	G =	G =	G = 14.0	G = 61.0	G =	G =					
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 6	Y =	Y =					
Duration of Analysis (hrs) = 0.25							Cycle Length C = 120.0						
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	58	116		111	168		53	1069		100	1505		
Lane group cap.	179	334		179	320		405	2566		405	2551		
v/c ratio	0.32	0.35		0.62	0.52		0.13	0.42		0.25	0.59		
Green ratio	0.10	0.10		0.10	0.10		0.12	0.51		0.12	0.51		
Unif. delay d1	50.2	50.3		51.8	51.3		47.5	18.4		48.2	20.7		
Delay factor k	0.11	0.11		0.20	0.13		0.11	0.11		0.11	0.18		
Increm. delay d2	1.1	0.6		6.4	1.6		0.1	0.1		0.3	0.4		
PF factor	1.000	1.000		1.000	1.000		0.912	0.311		0.912	0.311		
Control delay	51.3	51.0		58.3	52.9		43.5	5.8		44.3	6.8		
Lane group LOS	D	D		E	D		D	A		D	A		
Approch. delay	51.1			55.0			7.6			9.1			
Approach LOS	D			E			A			A			
Intersec. delay	14.9			Intersection LOS						B			

SHORT REPORT													
General Information							Site Information						
Analyst	USAI						Intersection	EL CAMINO REAL@					
Agency or Co.	USAI						Area Type	MARRON RD.					
Date Performed	04/29/12						Jurisdiction	All other areas					
Time Period	AM PEAK						Analysis Year	CARLSBAD					
							BO.ALT.-1/WITH PROJECT						
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	1	2	0	1	2	0	2	3	0	2	3	0	
Lane group	L	TR		L	TR		L	TR		L	TR		
Volume (vph)	55	63	50	114	55	117	50	980	39	97	1330	100	
% Heavy veh	1	1	1	1	1	1	1	2	1	1	2	1	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0		
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0		
Arrival type	4	4		4	4		5	5		5	5		
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0		
Ped/Bike/RTOR Volume	5		0	5		0	5	5	0	5	5	0	
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0		0	0		0	0		0	0		
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0		
Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08					
Timing	G = 12.0	G = 12.0	G =	G =	G = 14.0	G = 61.0	G =	G =					
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 6	Y =	Y =					
Duration of Analysis (hrs) = 0.25							Cycle Length C = 120.0						
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	58	119		120	181		53	1073		102	1505		
Lane group cap.	179	334		179	322		405	2564		405	2551		
v/c ratio	0.32	0.36		0.67	0.56		0.13	0.42		0.25	0.59		
Green ratio	0.10	0.10		0.10	0.10		0.12	0.51		0.12	0.51		
Unif. delay d1	50.2	50.4		52.1	51.5		47.5	18.4		48.2	20.7		
Delay factor k	0.11	0.11		0.24	0.16		0.11	0.11		0.11	0.18		
Increm. delay d2	1.1	0.7		9.3	2.2		0.1	0.1		0.3	0.4		
PF factor	1.000	1.000		1.000	1.000		0.912	0.311		0.912	0.311		
Control delay	51.3	51.1		61.4	53.7		43.5	5.8		44.3	6.8		
Lane group LOS	D	D		E	D		D	A		D	A		
Approch. delay	51.1			56.8			7.6			9.2			
Approach LOS	D			E			A			A			
Intersec. delay	15.4			Intersection LOS						B			

SHORT REPORT												
General Information							Site Information					
Analyst	USAI						EL CAMINO REAL@					
Agency or Co.	USAI						MARRON RD.					
Date Performed	04/29/12						All other areas					
Time Period	PM PEAK						CARLSBAD					
							Analysis Year BO.ALT.-1/NO PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	2	0	1	2	0	2	3	0	2	3	0
Lane group	L	TR		L	TR		L	TR		L	TR	
Volume (vph)	330	280	110	150	115	190	180	1545	105	265	1100	200
% Heavy veh	1	1	1	1	1	1	1	2	1	1	2	1
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Arrival type	4	4		4	4		5	5		5	5	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	5		0	5		0	5	5	0	5	5	0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0		0	0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08				
Timing	G = 28.0	G = 20.0	G =	G =	G = 15.0	G = 51.0	G =	G =				
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 6	Y =	Y =				
Duration of Analysis (hrs) = 0.25							Cycle Length C = 135.0					
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	347	411		158	321		189	1737		279	1369	
Lane group cap.	371	508		371	481		386	1898		386	1870	
v/c ratio	0.94	0.81		0.43	0.67		0.49	0.92		0.72	0.73	
Green ratio	0.21	0.15		0.21	0.15		0.11	0.38		0.11	0.38	
Unif. delay d1	52.6	55.7		46.5	54.4		56.4	39.9		58.0	36.1	
Delay factor k	0.45	0.35		0.11	0.24		0.11	0.43		0.28	0.29	
Increm. delay d2	30.7	9.5		0.8	3.5		1.0	7.4		6.6	1.5	
PF factor	1.000	1.000		1.000	1.000		0.917	0.595		0.917	0.595	
Control delay	83.3	65.1		47.3	57.9		52.7	31.2		59.7	23.0	
Lane group LOS	F	E		D	E		D	C		E	C	
Approch. delay	73.5			54.4			33.3			29.2		
Approach LOS	E			D			C			C		
Intersec. delay	40.3			Intersection LOS						D		

SHORT REPORT												
General Information							Site Information					
Analyst <i>USAI</i> Agency or Co. <i>USAI</i> Date Performed <i>04/29/12</i> Time Period <i>PM PEAK</i>							Intersection <i>EL CAMINO REAL@</i> <i>MARRON RD.</i> Area Type <i>All other areas</i> Jurisdiction <i>CARLSBAD</i> Analysis Year <i>BO.ALT.-1/WITH PROJECT</i>					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	2	0	1	2	0	2	3	0	2	3	0
Lane group	L	TR		L	TR		L	TR		L	TR	
Volume (vph)	330	291	110	155	121	192	180	1545	116	267	1100	200
% Heavy veh	1	1	1	1	1	1	1	2	1	1	2	1
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Arrival type	4	4		4	4		5	5		5	5	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	5		0	5		0	5	5	0	5	5	0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0		0	0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Phasing	Excl. Left	Thru & RT		03		04		Excl. Left	Thru & RT		07 08	
Timing	G = 28.0	G = 20.0		G =		G =		G = 15.0	G = 51.0		G =	
	Y = 5	Y = 5		Y =		Y =		Y = 5	Y = 6		Y =	
Duration of Analysis (hrs) = 0.25							Cycle Length C = 135.0					
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	347	422		163	329		189	1748		281	1369	
Lane group cap.	371	509		371	482		386	1896		386	1870	
v/c ratio	0.94	0.83		0.44	0.68		0.49	0.92		0.73	0.73	
Green ratio	0.21	0.15		0.21	0.15		0.11	0.38		0.11	0.38	
Unif. delay d1	52.6	55.8		46.7	54.5		56.4	40.1		58.0	36.1	
Delay factor k	0.45	0.37		0.11	0.25		0.11	0.44		0.29	0.29	
Increm. delay d2	30.7	11.0		0.8	3.9		1.0	8.0		6.8	1.5	
PF factor	1.000	1.000		1.000	1.000		0.917	0.595		0.917	0.595	
Control delay	83.3	66.8		47.5	58.4		52.7	31.9		60.0	23.0	
Lane group LOS	F	E		D	E		D	C		E	C	
Apprch. delay	74.3			54.8			33.9			29.3		
Approach LOS	E			D			C			C		
Intersec. delay	40.9			Intersection LOS						D		

SHORT REPORT												
General Information						Site Information						
Analyst Agency or Co. Date Performed Time Period						Intersection Area Type Jurisdiction Analysis Year						
USA/ USA/ 04/29/12 AM PEAK						EL CAMINO REAL@ CARLSBAD VILL. All other areas CARLSBAD-INT.#6 BO.ALT.-1/NO PROJECT						
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	2	0	1	2	0	1	3	0	1	3	0
Lane group	L	TR		L	TR		L	TR		L	TR	
Volume (vph)	130	110	60	70	550	140	40	895	20	105	1315	65
% Heavy veh	1	1	1	1	1	1	1	2	1	1	2	1
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Arrival type	4	4		4	4		5	5		5	5	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	5		0	5		0	5	5	0	5	5	0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0		0	0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08				
Timing	G = 17.0	G = 30.0	G =	G =	G = 14.0	G = 48.0	G =	G =				
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 6	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 130.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	137	179		74	726		42	963		111	1452	
Lane group cap.	234	783		234	801		192	1867		192	1859	
v/c ratio	0.59	0.23		0.32	0.91		0.22	0.52		0.58	0.78	
Green ratio	0.13	0.23		0.13	0.23		0.11	0.37		0.11	0.37	
Unif. delay d1	53.2	40.6		51.2	48.6		53.0	31.9		55.2	36.3	
Delay factor k	0.18	0.11		0.11	0.43		0.11	0.12		0.17	0.33	
Increm. delay d2	3.8	0.1		0.8	14.0		0.6	0.3		4.3	2.2	
PF factor	1.000	1.000		1.000	1.000		0.920	0.610		0.920	0.610	
Control delay	56.9	40.8		52.0	62.6		49.3	19.7		55.0	24.4	
Lane group LOS	E	D		D	E		D	B		E	C	
Apprch. delay	47.8			61.6			21.0			26.6		
Approach LOS	D			E			C			C		
Intersec. delay	34.5			Intersection LOS						C		

SHORT REPORT													
General Information							Site Information						
Analyst	USAI						Intersection	EL CAMINO REAL@					
Agency or Co.	USAI						Area Type	CARLSBAD VILL.					
Date Performed	04/29/12						Jurisdiction	All other areas					
Time Period	AM PEAK						Analysis Year	CARLSBAD-INT.#6					
							BO.ALT.-1/WITH PROJECT						
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	1	2	0	1	2	0	1	3	0	1	3	0	
Lane group	L	TR		L	TR		L	TR		L	TR		
Volume (vph)	131	110	60	71	551	141	40	797	27	106	1320	69	
% Heavy veh	1	1	1	1	1	1	1	2	1	1	2	1	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0		
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0		
Arrival type	4	4		4	4		5	5		5	5		
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0		
Ped/Bike/RTOR Volume	5		0	5		0	5	5	0	5	5	0	
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0		0	0		0	0		0	0		
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0		
Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08					
Timing	G = 17.0	G = 30.0	G =	G =	G = 14.0	G = 48.0	G =	G =					
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 6	Y =	Y =					
Duration of Analysis (hrs) = 0.25							Cycle Length C = 130.0						
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	138	179		75	728		42	867		112	1462		
Lane group cap.	234	783		234	801		192	1864		192	1859		
v/c ratio	0.59	0.23		0.32	0.91		0.22	0.47		0.58	0.79		
Green ratio	0.13	0.23		0.13	0.23		0.11	0.37		0.11	0.37		
Unif. delay d1	53.2	40.6		51.3	48.7		53.0	31.2		55.2	36.4		
Delay factor k	0.18	0.11		0.11	0.43		0.11	0.11		0.17	0.33		
Increm. delay d2	3.9	0.1		0.8	14.3		0.6	0.2		4.5	2.3		
PF factor	1.000	1.000		1.000	1.000		0.920	0.610		0.920	0.610		
Control delay	57.1	40.8		52.1	62.9		49.3	19.2		55.3	24.5		
Lane group LOS	E	D		D	E		D	B		E	C		
Apprch. delay	47.9			61.9			20.6			26.7			
Approach LOS	D			E			C			C			
Intersec. delay	34.9			Intersection LOS						C			

SHORT REPORT													
General Information							Site Information						
Analyst	USAI						Intersection	EL CAMINO REAL@					
Agency or Co.	USAI						Area Type	CARLSBAD VILL.					
Date Performed	04/29/12						Jurisdiction	All other areas					
Time Period	PM PEAK						Analysis Year	CARLSBAD-INT.#6					
							BO.ALT.-1/NO PROJECT						
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	1	2	0	1	2	0	1	3	0	1	3	0	
Lane group	L	TR		L	TR		L	TR		L	TR		
Volume (vph)	155	280	65	40	220	145	110	1530	65	195	1035	130	
% Heavy veh	1	1	1	1	1	1	1	2	1	1	2	1	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0		
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0		
Arrival type	4	4		4	4		5	5		5	5		
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0		
Ped/Bike/RTOR Volume	5		0	5		0	5	5	0	5	5	0	
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0		0	0		0	0		0	0		
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0		
Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08					
Timing	G = 17.0	G = 30.0	G =	G =	G = 14.0	G = 48.0	G =	G =					
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 6	Y =	Y =					
Duration of Analysis (hrs) = 0.25							Cycle Length C = 130.0						
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	163	363		42	385		116	1679		205	1226		
Lane group cap.	234	803		234	777		192	1861		192	1840		
v/c ratio	0.70	0.45		0.18	0.50		0.60	0.90		1.07	0.67		
Green ratio	0.13	0.23		0.13	0.23		0.11	0.37		0.11	0.37		
Unif. delay d1	54.0	42.9		50.3	43.4		55.4	38.8		58.0	34.3		
Delay factor k	0.26	0.11		0.11	0.11		0.19	0.42		0.50	0.24		
Increm. delay d2	8.7	0.4		0.4	0.5		5.3	6.6		84.1	0.9		
PF factor	1.000	1.000		1.000	1.000		0.920	0.610		0.920	0.610		
Control delay	62.8	43.3		50.7	43.9		56.2	30.2		137.4	21.8		
Lane group LOS	E	D		D	D		E	C		F	C		
Apprch. delay	49.4			44.6			31.9			38.4			
Approach LOS	D			D			C			D			
Intersec. delay	37.6			Intersection LOS						D			

SHORT REPORT													
General Information							Site Information						
Analyst	USAI						Intersection	EL CAMINO REAL@					
Agency or Co.	USAI						Area Type	CARLSBAD VILL.					
Date Performed	04/29/12						Jurisdiction	All other areas					
Time Period	PM PEAK						Analysis Year	CARLSBAD-INT.#6					
							BO.ALT.-1/WITH PROJECT						
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	1	2	0	1	2	0	1	3	0	1	3	0	
Lane group	L	TR		L	TR		L	TR		L	TR		
Volume (vph)	159	280	65	41	221	146	110	1536	66	196	1038	132	
% Heavy veh	1	1	1	1	1	1	1	2	1	1	2	1	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0		
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0		
Arrival type	4	4		4	4		5	5		5	5		
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0		
Ped/Bike/RTOR Volume	5		0	5		0	5	5	0	5	5	0	
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0		0	0		0	0		0	0		
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0		
Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08					
Timing	G = 17.0	G = 30.0	G =	G =	G = 14.0	G = 48.0	G =	G =					
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 6	Y =	Y =					
Duration of Analysis (hrs) = 0.25							Cycle Length C = 130.0						
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	167	363		43	387		116	1686		206	1232		
Lane group cap.	234	803		234	777		192	1861		192	1840		
v/c ratio	0.71	0.45		0.18	0.50		0.60	0.91		1.07	0.67		
Green ratio	0.13	0.23		0.13	0.23		0.11	0.37		0.11	0.37		
Unif. delay d1	54.2	42.9		50.3	43.5		55.4	38.9		58.0	34.4		
Delay factor k	0.28	0.11		0.11	0.11		0.19	0.43		0.50	0.24		
Increm. delay d2	9.9	0.4		0.4	0.5		5.3	6.8		85.7	1.0		
PF factor	1.000	1.000		1.000	1.000		0.920	0.610		0.920	0.610		
Control delay	64.0	43.3		50.7	44.0		56.2	30.5		139.0	21.9		
Lane group LOS	E	D		D	D		E	C		F	C		
Apprch. delay	49.9			44.6			32.2			38.7			
Approach LOS	D			D			C			D			
Intersec. delay	37.9			Intersection LOS						D			

SHORT REPORT													
General Information							Site Information						
Analyst	USAI						Intersection						VISTA WAY@RANCHO DEL
Agency or Co.	USAI						Area Type						ORO RD.
Date Performed	04/29/12						Jurisdiction						All other areas
Time Period	AM PEAK						Analysis Year						OCEANSIDE
													BO.ALT-1/NO PROJECT
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	1	2	1	2	2	0	1	2	0	1	2	1	
Lane group	L	T	R	L	TR		L	TR		L	T	R	
Volume (vph)	10	40	150	235	70	75	200	500	200	40	1390	40	
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2	
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	2.0	
Ext. eff. green	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	2.0	
Arrival type	5	5	5	5	5		4	4		4	4	4	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0	
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5	10	0	
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0	0	0	0		0	0		0	0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0	
Phasing	Excl. Left	Thru & RT	03		04		Excl. Left	Thru & RT	07		08		
Timing	G = 9.0	G = 8.0	G =		G =		G = 17.0	G = 46.0	G =		G =		
	Y = 5	Y = 5	Y =		Y =		Y = 5	Y = 5	Y =		Y =		
Duration of Analysis (hrs) = 0.25							Cycle Length C = 100.0						
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	11	43	163	255	158		217	760		43	1511	43	
Lane group cap.	159	284	457	309	254		301	1553		301	1632	714	
v/c ratio	0.07	0.15	0.36	0.83	0.62		0.72	0.49		0.14	0.93	0.06	
Green ratio	0.09	0.08	0.30	0.09	0.08		0.17	0.46		0.17	0.46	0.46	
Unif. delay d1	41.7	42.8	27.4	44.7	44.5		39.3	18.8		35.3	25.4	15.0	
Delay factor k	0.11	0.11	0.11	0.36	0.21		0.28	0.11		0.11	0.44	0.11	
Increm. delay d2	0.2	0.2	0.5	16.5	4.7		8.2	0.2		0.2	9.5	0.0	
PF factor	0.934	0.942	0.714	0.934	0.942		1.000	0.823		1.000	0.823	0.823	
Control delay	39.1	40.6	20.1	58.3	46.6		47.4	15.7		35.5	30.4	12.4	
Lane group LOS	D	D	C	E	D		D	B		D	C	B	
Apprch. delay	25.1			53.8			22.8			30.0			
Approach LOS	C			D			C			C			
Intersec. delay	30.6			Intersection LOS						C			

SHORT REPORT													
General Information							Site Information						
Analyst	USAI						Intersection						VISTA WAY@RANCHO DEL
Agency or Co.	USAI						Area Type						ORO RD.
Date Performed	04/29/12						Jurisdiction						All other areas
Time Period	AM PEAK						Analysis Year						OCEANSIDE
													BO.ALT-1/WITH PROJECT
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	1	2	1	2	2	0	1	2	0	1	2	1	
Lane group	L	T	R	L	TR		L	TR		L	T	R	
Volume (vph)	10	40	158	235	70	75	222	514	200	40	1394	40	
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2	
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	2.0	
Ext. eff. green	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	2.0	
Arrival type	5	5	5	5	5		4	4		4	4	4	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0	
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5	10	0	
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0	0	0	0		0	0		0	0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0	
Phasing	Excl. Left	Thru & RT	03		04		Excl. Left	Thru & RT	07		08		
Timing	G = 9.0	G = 8.0	G =		G =		G = 17.0	G = 46.0	G =		G =		
	Y = 5	Y = 5	Y =		Y =		Y = 5	Y = 5	Y =		Y =		
Duration of Analysis (hrs) = 0.25							Cycle Length C = 100.0						
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	11	43	172	255	158		241	776		43	1515	43	
Lane group cap.	159	284	457	309	254		301	1554		301	1632	714	
v/c ratio	0.07	0.15	0.38	0.83	0.62		0.80	0.50		0.14	0.93	0.06	
Green ratio	0.09	0.08	0.30	0.09	0.08		0.17	0.46		0.17	0.46	0.46	
Unif. delay d1	41.7	42.8	27.6	44.7	44.5		39.9	18.9		35.3	25.4	15.0	
Delay factor k	0.11	0.11	0.11	0.36	0.21		0.34	0.11		0.11	0.44	0.11	
Increm. delay d2	0.2	0.2	0.5	16.5	4.7		14.3	0.3		0.2	9.7	0.0	
PF factor	0.934	0.942	0.714	0.934	0.942		1.000	0.823		1.000	0.823	0.823	
Control delay	39.1	40.6	20.2	58.3	46.6		54.2	15.8		35.5	30.7	12.4	
Lane group LOS	D	D	C	E	D		D	B		D	C	B	
Approch. delay	25.0			53.8			24.9			30.3			
Approach LOS	C			D			C			C			
Intersec. delay	31.3			Intersection LOS						C			

SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection VISTA WAY@RANCHO DEL ORO RD.						
Agency or Co.	USAI					Area Type All other areas						
Date Performed	04/29/12					Jurisdiction OCEANSIDE						
Time Period	PM PEAK					Analysis Year BO.ALT-1/NO PROJECT						
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	2	1	2	2	0	1	2	0	1	2	1
Lane group	L	T	R	L	TR		L	TR		L	T	R
Volume (vph)	70	130	460	400	115	185	130	1280	200	20	735	60
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	2.0
Ext. eff. green	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	2.0
Arrival type	5	5	5	5	5		4	4		4	4	4
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5		0
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0		0	0		0	0	0
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Phasing	Excl. Left	WB Only	Thru & RT	04			Excl. Left	NB Only	Thru & RT	08		
Timing	G = 9.0	G = 9.0	G = 20.0	G =			G = 9.0	G = 9.0	G = 44.0	G =		
	Y = 5	Y = 5	Y = 5	Y =			Y = 5	Y = 5	Y = 5	Y =		
Duration of Analysis (hrs) = 0.25						Cycle Length C = 130.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	76	141	500	435	326		141	1608		22	799	65
Lane group cap.	123	546	569	608	828		313	1546		123	1201	536
v/c ratio	0.62	0.26	0.88	0.72	0.39		0.45	1.04		0.18	0.67	0.12
Green ratio	0.07	0.15	0.37	0.18	0.26		0.18	0.45		0.07	0.34	0.34
Unif. delay d1	58.8	48.5	38.3	50.4	39.5		47.8	36.0		57.0	36.7	29.7
Delay factor k	0.20	0.11	0.41	0.28	0.11		0.11	0.50		0.11	0.24	0.11
Increm. delay d2	9.1	0.3	14.7	4.0	0.3		1.0	34.1		0.7	1.4	0.1
PF factor	0.950	0.879	0.610	0.857	0.764		1.000	0.841		1.000	0.954	0.954
Control delay	65.0	42.8	38.0	47.2	30.5		48.9	64.3		57.7	36.4	28.4
Lane group LOS	E	D	D	D	C		D	E		E	D	C
Apprch. delay	41.8			40.0			63.1			36.4		
Approach LOS	D			D			E			D		
Intersec. delay	49.4			Intersection LOS						D		

SHORT REPORT												
General Information						Site Information						
Analyst USAI						Intersection VISTA WAY@RANCHO DEL ORO RD.						
Agency or Co. USAI						Area Type All other areas						
Date Performed 04/29/12						Jurisdiction OCEANSIDE						
Time Period PM PEAK						Analysis Year BO.ALT-1/WITH PROJECT						
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	2	1	2	2	0	1	2	0	1	2	1
Lane group	L	T	R	L	TR		L	TR		L	T	R
Volume (vph)	70	130	484	400	115	185	142	1289	200	20	748	60
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	2.0
Ext. eff. green	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	2.0
Arrival type	5	5	5	5	5		4	4		4	4	4
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5		0
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0		0	0		0	0	0
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Phasing	Excl. Left	WB Only	Thru & RT	04			Excl. Left	NB Only	Thru & RT	08		
Timing	G = 9.0	G = 9.0	G = 20.0	G =			G = 9.0	G = 9.0	G = 44.0	G =		
	Y = 5	Y = 5	Y = 5	Y =			Y = 5	Y = 5	Y = 5	Y =		
Duration of Analysis (hrs) = 0.25						Cycle Length C = 130.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	76	141	526	435	326		154	1618		22	813	65
Lane group cap.	123	546	569	608	828		313	1546		123	1201	536
v/c ratio	0.62	0.26	0.92	0.72	0.39		0.49	1.05		0.18	0.68	0.12
Green ratio	0.07	0.15	0.37	0.18	0.26		0.18	0.45		0.07	0.34	0.34
Unif. delay d1	58.8	48.5	39.3	50.4	39.5		48.2	36.0		57.0	36.9	29.7
Delay factor k	0.20	0.11	0.44	0.28	0.11		0.11	0.50		0.11	0.25	0.11
Increm. delay d2	9.1	0.3	21.1	4.0	0.3		1.2	36.1		0.7	1.5	0.1
PF factor	0.950	0.879	0.610	0.857	0.764		1.000	0.841		1.000	0.954	0.954
Control delay	65.0	42.8	45.0	47.2	30.5		49.5	66.4		57.7	36.7	28.4
Lane group LOS	E	D	D	D	C		D	E		E	D	C
Apprch. delay	46.6			40.0			64.9			36.7		
Approach LOS	D			D			E			D		
Intersec. delay	51.1			Intersection LOS						D		

SHORT REPORT												
General Information						Site Information						
Analyst USAI						Intersection SR-78WB RAMPS/RANCHO						
Agency or Co. USAI						DEL ORO R						
Date Performed 04/29/12						Area Type All other areas						
Time Period AM PEAK						Jurisdiction OCEANSIDE-INT.#8						
						Analysis Year BO.ALT.-1/NO PROJECT						
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	0	0	1	1	1	1	2	0	0	2	1
Lane group				L	LTR	R	L	T			T	R
Volume (vph)				135	5	310	220	600			917	860
% Heavy veh				10	10	0	10	10			10	10
PHF				0.95	0.95	0.95	0.95	0.95			0.95	0.95
Actuated (P/A)				A	A	A	A	A	A		A	A
Startup lost time				2.0	2.0	2.0	2.0	2.0			2.0	2.0
Ext. eff. green				2.0	2.0	2.0	2.0	2.0			2.0	2.0
Arrival type				3	3	3	3	5			5	3
Unit Extension				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Ped/Bike/RTOR Volume	10			0		0				0	0	200
Lane Width				12.0	12.0	12.0	12.0	12.0			12.0	12.0
Parking/Grade/Parking	N		N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr				0	0	0	0	0			0	0
Unit Extension				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Phasing	WB Only	02	03	04	NB Only	Thru & RT	07	08				
Timing	G = 22.0	G =	G =	G =	G = 30.0	G = 48.0	G =	G =				
	Y = 5	Y =	Y =	Y =	Y = 5	Y = 5	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 115.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate				122	172	179	232	632			965	695
Lane group cap.				314	311	309	428	2499			1445	613
v/c ratio				0.39	0.55	0.58	0.54	0.25			0.67	1.13
Green ratio				0.19	0.19	0.19	0.26	0.72			0.42	0.42
Unif. delay d1				40.6	42.1	42.3	36.6	5.4			27.1	33.5
Delay factor k				0.11	0.15	0.17	0.14	0.11			0.24	0.50
Increm. delay d2				0.8	2.1	2.7	1.4	0.1			1.2	79.1
PF factor				1.000	1.000	1.000	1.000	0.180			0.522	1.000
Control delay				41.4	44.2	45.0	38.0	1.0			15.3	112.6
Lane group LOS				D	D	D	D	A			B	F
Apprch. delay				43.8			11.0			56.1		
Approach LOS				D			B			E		
Intersec. delay	41.1			Intersection LOS						D		

SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection SR-78WB RAMPS/RANCHO DEL ORO R						
Agency or Co.	USAI					Area Type All other areas						
Date Performed	04/29/12					Jurisdiction OCEANSIDE-INT.#8						
Time Period	AM PEAK					Analysis Year BO.ALT.-1/WITH PROJECT						
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	0	0	1	1	1	1	2	0	0	2	1
Lane group				L	LTR	R	L	T			T	R
Volume (vph)				135	5	310	277	626			927	860
% Heavy veh				10	10	0	10	10			10	10
PHF				0.95	0.95	0.95	0.95	0.95			0.95	0.95
Actuated (P/A)				A	A	A	A	A	A		A	A
Startup lost time				2.0	2.0	2.0	2.0	2.0			2.0	2.0
Ext. eff. green				2.0	2.0	2.0	2.0	2.0			2.0	2.0
Arrival type				3	3	3	3	5			5	3
Unit Extension				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Ped/Bike/RTOR Volume	10			0		0				0	0	200
Lane Width				12.0	12.0	12.0	12.0	12.0			12.0	12.0
Parking/Grade/Parking	N		N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr				0	0	0	0	0			0	0
Unit Extension				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Phasing	WB Only	02	03	04	NB Only	Thru & RT	07	08				
Timing	G = 22.0	G =	G =	G =	G = 30.0	G = 48.0	G =	G =				
	Y = 5	Y =	Y =	Y =	Y = 5	Y = 5	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 115.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate				122	172	179	292	659			976	695
Lane group cap.				314	311	309	428	2499			1445	613
v/c ratio				0.39	0.55	0.58	0.68	0.26			0.68	1.13
Green ratio				0.19	0.19	0.19	0.26	0.72			0.42	0.42
Unif. delay d1				40.6	42.1	42.3	38.2	5.5			27.2	33.5
Delay factor k				0.11	0.15	0.17	0.25	0.11			0.25	0.50
Increm. delay d2				0.8	2.1	2.7	4.4	0.1			1.3	79.1
PF factor				1.000	1.000	1.000	1.000	0.180			0.522	1.000
Control delay				41.4	44.2	45.0	42.6	1.0			15.5	112.6
Lane group LOS				D	D	D	D	A			B	F
Apprch. delay				43.8			13.8			55.9		
Approach LOS				D			B			E		
Intersec. delay	41.1			Intersection LOS						D		

SHORT REPORT												
General Information						Site Information						
Analyst USAI						Intersection SR-78WB RAMPS/RANCHO						
Agency or Co. USAI						DEL ORO R						
Date Performed 04/29/12						Area Type All other areas						
Time Period PM PEAK						Jurisdiction OCEANSIDE-INT.#8						
						Analysis Year BO.ALT.-1/NO PROJECT						
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	0	0	1	1	1	1	2	0	0	2	1
Lane group				L	LTR	R	L	T			T	R
Volume (vph)				490	5	750	200	860			920	675
% Heavy veh				10	10	0	10	10			10	10
PHF				0.95	0.95	0.95	0.95	0.95			0.95	0.95
Actuated (P/A)				A	A	A	A	A	A		A	A
Startup lost time				2.0	2.0	2.0	2.0	2.0			2.0	2.0
Ext. eff. green				2.0	2.0	2.0	2.0	2.0			2.0	2.0
Arrival type				3	3	3	3	5			5	3
Unit Extension				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Ped/Bike/RTOR Volume	10			0		0				0	0	200
Lane Width				12.0	12.0	12.0	12.0	12.0			12.0	12.0
Parking/Grade/Parking	N		N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr				0	0	0	0	0			0	0
Unit Extension				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Phasing	WB Only	02	03	04	NB Only	Thru & RT	07	08				
Timing	G = 37.0	G =	G =	G =	G = 21.0	G = 47.0	G =	G =				
	Y = 5	Y =	Y =	Y =	Y = 5	Y = 5	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 120.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate				444	432	434	211	905			968	500
Lane group cap.				506	500	498	287	2106			1356	575
v/c ratio				0.88	0.86	0.87	0.74	0.43			0.71	0.87
Green ratio				0.31	0.31	0.31	0.17	0.61			0.39	0.39
Unif. delay d1				39.4	39.1	39.3	46.9	12.5			30.8	33.7
Delay factor k				0.40	0.39	0.40	0.29	0.11			0.28	0.40
Increm. delay d2				16.0	14.6	15.5	9.5	0.1			1.8	13.5
PF factor				1.000	1.000	1.000	1.000	0.128			0.571	1.000
Control delay				55.3	53.7	54.7	56.3	1.7			19.4	47.2
Lane group LOS				E	D	D	E	A			B	D
Apprch. delay				54.6			12.1			28.9		
Approach LOS				D			B			C		
Intersec. delay	32.7			Intersection LOS						C		

SHORT REPORT												
General Information						Site Information						
Analyst USAI						Intersection SR-78WB RAMPS/RANCHO						
Agency or Co. USAI						DEL ORO R						
Date Performed 04/29/12						Area Type All other areas						
Time Period PM PEAK						Jurisdiction OCEANSIDE-INT.#8						
						Analysis Year BO.ALT.-1/WITH PROJECT						
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	0	0	1	1	1	1	2	0	0	2	1
Lane group				L	LTR	R	L	T			T	R
Volume (vph)				490	5	750	231	878			957	675
% Heavy veh				10	10	0	10	10			10	10
PHF				0.95	0.95	0.95	0.95	0.95			0.95	0.95
Actuated (P/A)				A	A	A	A	A	A		A	A
Startup lost time				2.0	2.0	2.0	2.0	2.0			2.0	2.0
Ext. eff. green				2.0	2.0	2.0	2.0	2.0			2.0	2.0
Arrival type				3	3	3	3	5			5	3
Unit Extension				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Ped/Bike/RTOR Volume	10			0		0				0	0	200
Lane Width				12.0	12.0	12.0	12.0	12.0			12.0	12.0
Parking/Grade/Parking	N		N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr				0	0	0	0	0			0	0
Unit Extension				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Phasing	WB Only	02	03	04	NB Only	Thru & RT	07	08				
Timing	G = 37.0	G =	G =	G =	G = 21.0	G = 47.0	G =	G =				
	Y = 5	Y =	Y =	Y =	Y = 5	Y = 5	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 120.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate				444	432	434	243	924			1007	500
Lane group cap.				506	500	498	287	2106			1356	575
v/c ratio				0.88	0.86	0.87	0.85	0.44			0.74	0.87
Green ratio				0.31	0.31	0.31	0.17	0.61			0.39	0.39
Unif. delay d1				39.4	39.1	39.3	47.9	12.6			31.3	33.7
Delay factor k				0.40	0.39	0.40	0.38	0.11			0.30	0.40
Increm. delay d2				16.0	14.6	15.5	20.4	0.1			2.2	13.5
PF factor				1.000	1.000	1.000	1.000	0.128			0.571	1.000
Control delay				55.3	53.7	54.7	68.3	1.7			20.1	47.2
Lane group LOS				E	D	D	E	A			C	D
Apprch. delay				54.6			15.6			29.1		
Approach LOS				D			B			C		
Intersec. delay	33.5			Intersection LOS						C		

SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	SR-78EB RAMPS/RANCHO DEL ORO R					
Agency or Co.	USAI					Area Type	All other areas					
Date Performed	04/29/12					Jurisdiction	OCEANSIDE-INT.#9					
Time Period	AM PEAK					Analysis Year	BO.ALT.-1/NO PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	1	1	0	0	0	0	2	0	2	2	0
Lane group	L	LTR	R					TR		L	T	
Volume (vph)	300	5	165					520	290	790	260	
% Heavy veh	10	10	10					10	10	10	10	
PHF	0.95	0.95	0.95					0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A					A	A	A	A	
Startup lost time	2.0	2.0	2.0					2.0		2.0	2.0	
Ext. eff. green	2.0	2.0	2.0					2.0		2.0	2.0	
Arrival type	3	3	3					5		5	5	
Unit Extension	3.0	3.0	3.0					3.0		3.0	3.0	
Ped/Bike/RTOR Volume	10		0	0			10	5	0			
Lane Width	12.0	12.0	12.0					12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N		N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0					0		0	0	
Unit Extension	3.0	3.0	3.0					3.0		3.0	3.0	
Phasing	EB Only	02	03	04	SB Only	Thru & RT	07	08				
Timing	G = 23.0	G =	G =	G =	G = 35.0	G = 47.0	G =	G =				
	Y = 5	Y =	Y =	Y =	Y = 5	Y = 5	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 120.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	177	179	139					852		832	274	
Lane group cap.	315	309	281					1273		930	2510	
v/c ratio	0.56	0.58	0.49					0.67		0.89	0.11	
Green ratio	0.19	0.19	0.19					0.39		0.29	0.73	
Unif. delay d1	43.9	44.1	43.3					30.1		40.7	4.9	
Delay factor k	0.16	0.17	0.11					0.24		0.42	0.11	
Increm. delay d2	2.3	2.7	1.4					1.4		11.1	0.0	
PF factor	1.000	1.000	1.000					0.571		0.725	0.182	
Control delay	46.2	46.8	44.7					18.5		40.7	0.9	
Lane group LOS	D	D	D					B		D	A	
Approch. delay	46.0						18.5			30.8		
Approach LOS	D						B			C		
Intersec. delay	29.6			Intersection LOS						C		

SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	SR-78EB RAMPS/RANCHO DEL ORO R					
Agency or Co.	USAI					Area Type	All other areas					
Date Performed	04/29/12					Jurisdiction	OCEANSIDE-INT.#9					
Time Period	AM PEAK					Analysis Year	BO.ALT.-1/WITH PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	1	1	0	0	0	0	2	0	2	2	0
Lane group	L	LTR	R					TR		L	T	
Volume (vph)	300	5	188					603	290	790	272	
% Heavy veh	10	10	10					10	10	10	10	
PHF	0.95	0.95	0.95					0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A					A	A	A	A	
Startup lost time	2.0	2.0	2.0					2.0		2.0	2.0	
Ext. eff. green	2.0	2.0	2.0					2.0		2.0	2.0	
Arrival type	3	3	3					5		5	5	
Unit Extension	3.0	3.0	3.0					3.0		3.0	3.0	
Ped/Bike/RTOR Volume	10		0	0			10	5	0			
Lane Width	12.0	12.0	12.0					12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N		N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0					0		0	0	
Unit Extension	3.0	3.0	3.0					3.0		3.0	3.0	
Phasing	EB Only	02	03	04	SB Only	Thru & RT	07	08				
Timing	G = 23.0	G =	G =	G =	G = 35.0	G = 47.0	G =	G =				
	Y = 5	Y =	Y =	Y =	Y = 5	Y = 5	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 120.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	177	184	158					940		832	286	
Lane group cap.	315	309	281					1281		930	2510	
v/c ratio	0.56	0.60	0.56					0.73		0.89	0.11	
Green ratio	0.19	0.19	0.19					0.39		0.29	0.73	
Unif. delay d1	43.9	44.3	43.9					31.2		40.7	4.9	
Delay factor k	0.16	0.18	0.16					0.29		0.42	0.11	
Increm. delay d2	2.3	3.1	2.6					2.2		11.1	0.0	
PF factor	1.000	1.000	1.000					0.571		0.725	0.182	
Control delay	46.2	47.4	46.5					20.0		40.7	0.9	
Lane group LOS	D	D	D					C		D	A	
Apprch. delay	46.7						20.0			30.5		
Approach LOS	D						C			C		
Intersec. delay	29.9			Intersection LOS						C		

SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	SR-78EB RAMPS/RANCHO DEL ORO R					
Agency or Co.	USAI					Area Type	All other areas					
Date Performed	04/29/12					Jurisdiction	OCEANSIDE-INT.#9					
Time Period	PM PEAK					Analysis Year	BO.ALT.-1/NO PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	1	1	0	0	0	0	2	0	2	2	0
Lane group	L	LTR	R					TR		L	T	
Volume (vph)	650	5	330					400	270	720	690	
% Heavy veh	10	10	10					10	10	10	10	
PHF	0.95	0.95	0.95					0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A					A	A	A	A	
Startup lost time	2.0	2.0	2.0					2.0		2.0	2.0	
Ext. eff. green	2.0	2.0	2.0					2.0		2.0	2.0	
Arrival type	3	3	3					5		5	5	
Unit Extension	3.0	3.0	3.0					3.0		3.0	3.0	
Ped/Bike/RTOR Volume	10		0	0			10	5	0			
Lane Width	12.0	12.0	12.0					12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N		N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0					0		0	0	
Unit Extension	3.0	3.0	3.0					3.0		3.0	3.0	
Phasing	EB Only	02	03	04	SB Only	Thru & RT	07	08				
Timing	G = 39.0	G =	G =	G =	G = 35.0	G = 41.0	G =	G =				
	Y = 5	Y =	Y =	Y =	Y = 5	Y = 5	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 130.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	383	375	278					705		758	726	
Lane group cap.	492	485	440					1016		858	2157	
v/c ratio	0.78	0.77	0.63					0.69		0.88	0.34	
Green ratio	0.30	0.30	0.30					0.32		0.27	0.62	
Unif. delay d1	41.6	41.5	39.3					39.0		45.5	11.7	
Delay factor k	0.33	0.32	0.21					0.26		0.41	0.11	
Increm. delay d2	7.8	7.6	2.9					2.1		10.8	0.1	
PF factor	1.000	1.000	1.000					0.693		0.754	0.133	
Control delay	49.4	49.1	42.2					29.1		45.1	1.6	
Lane group LOS	D	D	D					C		D	A	
Apprch. delay	47.3						29.1			23.9		
Approach LOS	D						C			C		
Intersec. delay	32.5			Intersection LOS						C		

SHORT REPORT												
General Information						Site Information						
Analyst	USA/					Intersection						
Agency or Co.	USA/					SR-78EB RAMPS/RANCHO						
Date Performed	04/29/12					DEL ORO R						
Time Period	PM PEAK					Area Type						
						All other areas						
						Jurisdiction						
						OCEANSIDE-INT.#9						
						Analysis Year						
						BO.ALT.-1/WITH PROJECT						
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	1	1	0	0	0	0	2	0	2	2	0
Lane group	L	LTR	R					TR		L	T	
Volume (vph)	650	5	394					462	270	720	727	
% Heavy veh	10	10	10					10	10	10	10	
PHF	0.95	0.95	0.95					0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A					A	A	A	A	
Startup lost time	2.0	2.0	2.0					2.0		2.0	2.0	
Ext. eff. green	2.0	2.0	2.0					2.0		2.0	2.0	
Arrival type	3	3	3					5		5	5	
Unit Extension	3.0	3.0	3.0					3.0		3.0	3.0	
Ped/Bike/RTOR Volume	10		0	0			10	5	0			
Lane Width	12.0	12.0	12.0					12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N		N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0					0		0	0	
Unit Extension	3.0	3.0	3.0					3.0		3.0	3.0	
Phasing	EB Only	02	03	04	SB Only	Thru & RT	07	08				
Timing	G = 39.0	G =	G =	G =	G = 35.0	G = 41.0	G =	G =				
	Y = 5	Y =	Y =	Y =	Y = 5	Y = 5	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 130.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	383	389	332					770		758	765	
Lane group cap.	492	483	440					1022		858	2157	
v/c ratio	0.78	0.81	0.75					0.75		0.88	0.35	
Green ratio	0.30	0.30	0.30					0.32		0.27	0.62	
Unif. delay d1	41.6	42.0	41.2					40.0		45.5	11.9	
Delay factor k	0.33	0.35	0.31					0.31		0.41	0.11	
Increm. delay d2	7.8	9.7	7.3					3.2		10.8	0.1	
PF factor	1.000	1.000	1.000					0.693		0.754	0.133	
Control delay	49.4	51.7	48.4					30.9		45.1	1.7	
Lane group LOS	D	D	D					C		D	A	
Apprch. delay	49.9						30.9			23.3		
Approach LOS	D						C			C		
Intersec. delay	33.7			Intersection LOS						C		

SHORT REPORT												
General Information						Site Information						
Analyst USAI						Intersection MARRON RD.@RANCHO						
Agency or Co. USAI						DEL ORO RD.						
Date Performed 04/29/12						Area Type All other areas						
Time Period AM PEAK HOUR						Jurisdiction OCEANSIDE-INT.#10						
						Analysis Year BO.ALT-1/NO PROJECT						
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	2	0	0	2	1	0	0	0	1	0	1
Lane group	L	T			T	R				L		R
Volume (vph)	450	220			127	352				175		250
% Heavy veh	1	1			1	1				1		1
PHF	0.95	0.95			0.95	0.95				0.95		0.95
Actuated (P/A)	A	A			A	A				A		A
Startup lost time	2.0	2.0			2.0	2.0				2.0		2.0
Ext. eff. green	2.0	2.0			2.0	2.0				2.0		2.0
Arrival type	5	5			5	5				4		4
Unit Extension	3.0	3.0			3.0	3.0				3.0		3.0
Ped/Bike/RTOR Volume				5	5	0	5			5	5	0
Lane Width	12.0	12.0			12.0	12.0				12.0		12.0
Parking/Grade/Parking	N	0	N	N	0	N	N		N	N	0	N
Parking/hr												
Bus stops/hr	0	0			0	0				0		0
Unit Extension	3.0	3.0			3.0	3.0				3.0		3.0
Phasing	EB Only	Thru & RT	03	04	SB Only	06	07	08				
Timing	G = 35.0	G = 30.0	G =	G =	G = 25.0	G =	G =	G =				
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y =	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 105.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	474	232			134	371				184		263
Lane group cap.	596	2388			1023	885				425		970
v/c ratio	0.80	0.10			0.13	0.42				0.43		0.27
Green ratio	0.33	0.67			0.29	0.57				0.24		0.62
Unif. delay d1	31.8	6.2			27.8	12.7				34.0		9.2
Delay factor k	0.34	0.11			0.11	0.11				0.11		0.11
Increm. delay d2	7.4	0.0			0.1	0.3				0.7		0.2
PF factor	0.667	0.150			0.733	0.117				1.000		0.527
Control delay	28.6	1.0			20.5	1.8				34.7		5.0
Lane group LOS	C	A			C	A				C		A
Apprch. delay	19.5			6.8						17.2		
Approach LOS	B			A						B		
Intersec. delay	15.0			Intersection LOS						B		

SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	MARRON RD.@RANCHO DEL ORO RD.					
Agency or Co.	USAI					Area Type	All other areas					
Date Performed	04/29/12					Jurisdiction	OCEANSIDE-INT.#10					
Time Period	AM PEAK HOUR					Analysis Year	BO.ALT-1/WITH PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	2	0	0	2	1	0	0	0	1	0	1
Lane group	L	T			T	R				L		R
Volume (vph)	450	231			158	443				208		250
% Heavy veh	1	1			1	1				1		1
PHF	0.95	0.95			0.95	0.95				0.95		0.95
Actuated (P/A)	A	A			A	A				A		A
Startup lost time	2.0	2.0			2.0	2.0				2.0		2.0
Ext. eff. green	2.0	2.0			2.0	2.0				2.0		2.0
Arrival type	5	5			5	5				4		4
Unit Extension	3.0	3.0			3.0	3.0				3.0		3.0
Ped/Bike/RTOR Volume				5	5	0	5			5	5	0
Lane Width	12.0	12.0			12.0	12.0				12.0		12.0
Parking/Grade/Parking	N	0	N	N	0	N	N		N	N	0	N
Parking/hr												
Bus stops/hr	0	0			0	0				0		0
Unit Extension	3.0	3.0			3.0	3.0				3.0		3.0
Phasing	EB Only	Thru & RT	03	04	SB Only	06	07	08				
Timing	G = 35.0	G = 30.0	G =	G =	G = 25.0	G =	G =	G =				
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y =	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 105.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	474	243		166	466				219		263	
Lane group cap.	596	2388		1023	885				425		970	
v/c ratio	0.80	0.10		0.16	0.53				0.52		0.27	
Green ratio	0.33	0.67		0.29	0.57				0.24		0.62	
Unif. delay d1	31.8	6.3		28.1	13.8				34.7		9.2	
Delay factor k	0.34	0.11		0.11	0.13				0.12		0.11	
Increm. delay d2	7.4	0.0		0.1	0.6				1.1		0.2	
PF factor	0.667	0.150		0.733	0.117				1.000		0.527	
Control delay	28.6	1.0		20.7	2.2				35.8		5.0	
Lane group LOS	C	A		C	A				D		A	
Apprch. delay	19.2			7.1						19.0		
Approach LOS	B			A						B		
Intersec. delay	15.0			Intersection LOS						B		

SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	MARRON RD.@RANCHO DEL ORO RD.					
Agency or Co.	USAI					Area Type	All other areas					
Date Performed	04/29/12					Jurisdiction	OCEANSIDE-INT.#10					
Time Period	PM PEAK HOUR					Analysis Year	BO.ALT-1/NO PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	2	0	0	2	1	0	0	0	1	0	1
Lane group	L	T			T	R				L		R
Volume (vph)	360	304			502	330				480		540
% Heavy veh	1	1			1	1				1		1
PHF	0.95	0.95			0.95	0.95				0.95		0.95
Actuated (P/A)	A	A			A	A				A		A
Startup lost time	2.0	2.0			2.0	2.0				2.0		2.0
Ext. eff. green	2.0	2.0			2.0	2.0				2.0		2.0
Arrival type	5	5			5	5				4		4
Unit Extension	3.0	3.0			3.0	3.0				3.0		3.0
Ped/Bike/RTOR Volume				5	5	0	5			5	5	0
Lane Width	12.0	12.0			12.0	12.0				12.0		12.0
Parking/Grade/Parking	N	0	N	N	0	N	N		N	N	0	N
Parking/hr												
Bus stops/hr	0	0			0	0				0		0
Unit Extension	3.0	3.0			3.0	3.0				3.0		3.0
Phasing	EB Only	Thru & RT	03	04	SB Only	06	07	08				
Timing	G = 25.0	G = 30.0	G =	G =	G = 35.0	G =	G =	G =				
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y =	Y =	Y =				
Duration of Analysis (hrs) = 0.25			Cycle Length C = 105.0									
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	379	320			528	347				505		568
Lane group cap.	425	2047			1023	1033				596		972
v/c ratio	0.89	0.16			0.52	0.34				0.85		0.58
Green ratio	0.24	0.57			0.29	0.67				0.33		0.62
Unif. delay d1	38.7	10.6			31.4	7.5				32.5		11.9
Delay factor k	0.42	0.11			0.12	0.11				0.38		0.18
Increm. delay d2	20.4	0.0			0.5	0.2				11.0		0.9
PF factor	0.792	0.117			0.733	0.150				0.958		0.527
Control delay	51.1	1.3			23.5	1.3				42.2		7.2
Lane group LOS	D	A			C	A				D		A
Apprch. delay	28.3			14.7						23.7		
Approach LOS	C			B						C		
Intersec. delay	21.9			Intersection LOS						C		

SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	MARRON RD.@RANCHO DEL ORO RD.					
Agency or Co.	USAI					Area Type	All other areas					
Date Performed	04/29/12					Jurisdiction	OCEANSIDE-INT.#10					
Time Period	PM PEAK HOUR					Analysis Year	BO.ALT-1/WITH PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	2	0	0	2	1	0	0	0	1	0	1
Lane group	L	T			T	R				L		R
Volume (vph)	360	338			519	379				581		540
% Heavy veh	1	1			1	1				1		1
PHF	0.95	0.95			0.95	0.95				0.95		0.95
Actuated (P/A)	A	A			A	A				A		A
Startup lost time	2.0	2.0			2.0	2.0				2.0		2.0
Ext. eff. green	2.0	2.0			2.0	2.0				2.0		2.0
Arrival type	5	5			5	5				4		4
Unit Extension	3.0	3.0			3.0	3.0				3.0		3.0
Ped/Bike/RTOR Volume				5	5	0	5			5	5	0
Lane Width	12.0	12.0			12.0	12.0				12.0		12.0
Parking/Grade/Parking	N	0	N	N	0	N	N		N	N	0	N
Parking/hr												
Bus stops/hr	0	0			0	0				0		0
Unit Extension	3.0	3.0			3.0	3.0				3.0		3.0
Phasing	EB Only	Thru & RT	03	04	SB Only	06	07	08				
Timing	G = 25.0	G = 30.0	G =	G =	G = 35.0	G =	G =	G =				
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y =	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 105.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	379	356			546	399				612		568
Lane group cap.	425	2047			1023	1033				596		972
v/c ratio	0.89	0.17			0.53	0.39				1.03		0.58
Green ratio	0.24	0.57			0.29	0.67				0.33		0.62
Unif. delay d1	38.7	10.7			31.6	7.9				35.0		11.9
Delay factor k	0.42	0.11			0.14	0.11				0.50		0.18
Increm. delay d2	20.4	0.0			0.5	0.2				43.9		0.9
PF factor	0.792	0.117			0.733	0.150				0.958		0.527
Control delay	51.1	1.3			23.7	1.4				77.4		7.2
Lane group LOS	D	A			C	A				E		A
Apprch. delay	27.0			14.3						43.6		
Approach LOS	C			B						D		
Intersec. delay	29.7			Intersection LOS						C		

SHORT REPORT													
General Information						Site Information							
Analyst	USAI					Intersection	COLLEGE BLVD.@ VISTA WAY						
Agency or Co.	USAI					Area Type	All other areas						
Date Performed	08/24/12					Jurisdiction	OCEANSIDE-INT#11						
Time Period	AM PEAK					Analysis Year	BO.ALT.-1/NO PROJECT						
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	2	2	1	2	2	0	1	3	1	2	3	0	
Lane group	L	T	R	L	TR		L	T	R	L	TR		
Volume (vph)	55	135	255	440	110	340	110	840	795	45	1400	45	
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0		
Ext. eff. green	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0		
Arrival type	5	5	5	5	5		5	5	5	5	5		
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0		
Ped/Bike/RTOR Volume	5	5	0	5	5	123	5	5	0	5	5	0	
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0	12.0	12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0	0	0	0		0	0	0	0	0		
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0		
Phasing	Excl. Left	WB Only	Thru & RT	04			Excl. Left	Thru & RT	07			08	
Timing	G = 4.0	G = 8.0	G = 7.0	G =			G = 9.5	G = 42.0	G =			G =	
	Y = 5.6	Y = 5.6	Y = 6.4	Y =			Y = 5.6	Y = 6.3	Y =			Y =	
Duration of Analysis (hrs) = 0.25						Cycle Length C = 100.0							
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	58	142	268	463	344		116	884	837	47	1521		
Lane group cap.	137	248	349	605	647		168	2131	814	327	2120		
v/c ratio	0.42	0.57	0.77	0.77	0.53		0.69	0.41	1.03	0.14	0.72		
Green ratio	0.04	0.07	0.23	0.18	0.21		0.09	0.42	0.52	0.09	0.42		
Unif. delay d1	46.9	45.1	36.1	39.2	35.4		43.8	20.4	23.9	41.5	24.1		
Delay factor k	0.11	0.17	0.32	0.32	0.13		0.26	0.11	0.50	0.11	0.28		
Increm. delay d2	2.1	3.2	9.9	5.8	0.8		11.4	0.1	39.0	0.2	1.2		
PF factor	0.972	0.950	0.802	0.858	0.827		0.930	0.517	0.269	0.930	0.517		
Control delay	47.7	46.0	38.9	39.5	30.1		52.2	10.7	45.4	38.8	13.6		
Lane group LOS	D	D	D	D	C		D	B	D	D	B		
Apprch. delay	42.1			35.5			29.1			14.4			
Approach LOS	D			D			C			B			
Intersec. delay	26.6			Intersection LOS						C			

SHORT REPORT												
General Information							Site Information					
Analyst	USAI						COLLEGE BLVD.@ VISTA WAY					
Agency or Co.	USAI						Area Type					
Date Performed	08/24/12						All other areas					
Time Period	AM PEAK						Jurisdiction					
							OCEANSIDE-INT#11					
							Analysis Year					
							BO.ALT.-1/WITH PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	2	1	2	2	0	1	3	1	2	3	0
Lane group	L	T	R	L	TR		L	T	R	L	TR	
Volume (vph)	55	135	256	461	110	340	113	875	814	45	1410	45
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Ext. eff. green	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Arrival type	5	5	5	5	5		5	5	5	5	5	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	5	5	0	5	5	123	5	5	0	5	5	0
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0		0	0	0	0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Phasing	Excl. Left	WB Only	Thru & RT	04			Excl. Left	Thru & RT	07			08
Timing	G = 4.0	G = 8.0	G = 7.0	G =			G = 9.5	G = 42.0	G =			G =
	Y = 5.6	Y = 5.6	Y = 6.4	Y =			Y = 5.6	Y = 6.3	Y =			Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 100.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	58	142	269	485	344		119	921	857	47	1531	
Lane group cap.	137	248	349	605	647		168	2131	814	327	2120	
v/c ratio	0.42	0.57	0.77	0.80	0.53		0.71	0.43	1.05	0.14	0.72	
Green ratio	0.04	0.07	0.23	0.18	0.21		0.09	0.42	0.52	0.09	0.42	
Unif. delay d1	46.9	45.1	36.1	39.5	35.4		43.9	20.6	23.9	41.5	24.1	
Delay factor k	0.11	0.17	0.32	0.35	0.13		0.27	0.11	0.50	0.11	0.28	
Increm. delay d2	2.1	3.2	10.1	7.6	0.8		12.9	0.1	46.4	0.2	1.2	
PF factor	0.972	0.950	0.802	0.858	0.827		0.930	0.517	0.269	0.930	0.517	
Control delay	47.7	46.0	39.1	41.5	30.1		53.7	10.8	52.8	38.8	13.7	
Lane group LOS	D	D	D	D	C		D	B	D	D	B	
Apprch. delay	42.2			36.8			32.4			14.5		
Approach LOS	D			D			C			B		
Intersec. delay	28.2			Intersection LOS						C		

SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	COLLEGE BLVD.@ VISTA WAY					
Agency or Co.	USAI					Area Type	All other areas					
Date Performed	08/22/12					Jurisdiction	OCEANSIDE-INT#11					
Time Period	PM PEAK					Analysis Year	BO.ALT.-1/NO PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	2	1	2	2	0	1	3	1	2	3	0
Lane group	L	T	R	L	TR		L	T	R	L	TR	
Volume (vph)	115	120	310	450	285	425	255	1420	660	45	1170	100
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Ext. eff. green	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Arrival type	5	5	5	5	5		5	5	5	5	5	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	5	5	10	5	5	65	5	5	0	5	5	0
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0		0	0	0	0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Phasing	Excl. Left	WB Only	Thru & RT	04			Excl. Left	NB Only	Thru & RT	08		
Timing	G = 6.0	G = 16.0	G = 10.0	G =			G = 7.0	G = 5.0	G = 31.1	G =		
	Y = 5.6	Y = 5.6	Y = 6.3	Y =			Y = 5.6	Y = 5.6	Y = 6.2	Y =		
Duration of Analysis (hrs) = 0.25						Cycle Length C = 110.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	121	126	316	474	679		268	1495	695	47	1337	
Lane group cap.	187	322	324	862	923		283	1924	1068	219	1415	
v/c ratio	0.65	0.39	0.98	0.55	0.74		0.95	0.78	0.65	0.21	0.94	
Green ratio	0.05	0.09	0.21	0.25	0.29		0.16	0.38	0.69	0.06	0.28	
Unif. delay d1	51.0	47.1	43.1	35.8	35.4		45.7	30.1	9.8	48.9	38.6	
Delay factor k	0.22	0.11	0.48	0.15	0.29		0.46	0.33	0.23	0.11	0.46	
Increm. delay d2	7.6	0.8	43.2	0.8	3.1		39.3	2.1	1.4	0.5	13.1	
PF factor	0.962	0.933	0.821	0.777	0.731		0.873	0.593	0.159	0.955	0.737	
Control delay	56.6	44.8	78.5	28.6	29.0		79.3	19.9	3.0	47.2	41.5	
Lane group LOS	E	D	E	C	C		E	B	A	D	D	
Apprch. delay	66.3			28.8			21.6			41.7		
Approach LOS	E			C			C			D		
Intersec. delay	32.6			Intersection LOS						C		

SHORT REPORT												
General Information							Site Information					
Analyst	USAI						COLLEGE BLVD.@ VISTA WAY					
Agency or Co.	USAI						All other areas					
Date Performed	08/22/12						OCEANSIDE-INT#11					
Time Period	PM PEAK						BO.ALT.-1/WITH PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	2	1	2	2	0	1	3	1	2	3	0
Lane group	L	T	R	L	TR		L	T	R	L	TR	
Volume (vph)	115	120	314	514	285	425	257	1440	670	45	1202	100
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Ext. eff. green	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Arrival type	5	5	5	5	5		5	5	5	5	5	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	5	5	10	5	5	65	5	5	0	5	5	0
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0		0	0	0	0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Phasing	Excl. Left	WB Only	Thru & RT	04			Excl. Left	NB Only	Thru & RT	08		
Timing	G = 6.0	G = 16.0	G = 10.0	G =			G = 7.0	G = 5.0	G = 31.1	G =		
	Y = 5.6	Y = 5.6	Y = 6.3	Y =			Y = 5.6	Y = 5.6	Y = 6.2	Y =		
Duration of Analysis (hrs) = 0.25						Cycle Length C = 110.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	121	126	320	541	679		271	1516	705	47	1370	
Lane group cap.	187	322	324	862	923		283	1924	1068	219	1416	
v/c ratio	0.65	0.39	0.99	0.63	0.74		0.96	0.79	0.66	0.21	0.97	
Green ratio	0.05	0.09	0.21	0.25	0.29		0.16	0.38	0.69	0.06	0.28	
Unif. delay d1	51.0	47.1	43.2	36.6	35.4		45.8	30.2	9.9	48.9	39.0	
Delay factor k	0.22	0.11	0.49	0.21	0.29		0.47	0.33	0.23	0.11	0.47	
Increm. delay d2	7.6	0.8	46.5	1.5	3.1		41.9	2.3	1.5	0.5	16.7	
PF factor	0.962	0.933	0.821	0.777	0.731		0.873	0.593	0.159	0.955	0.737	
Control delay	56.6	44.8	82.0	29.9	29.0		82.0	20.2	3.1	47.2	45.5	
Lane group LOS	E	D	F	C	C		F	C	A	D	D	
Apprch. delay	68.3			29.4			22.1			45.5		
Approach LOS	E			C			C			D		
Intersec. delay	34.1			Intersection LOS						C		

WITH MIT. NB 2-RT LANES / WB ADD RTD LANE.

SHORT REPORT

General Information						Site Information					
Analyst	USAI					Intersection	COLLEGE BLVD.@ VISTA WAY				
Agency or Co.	USAI					Area Type	All other areas				
Date Performed	08/24/12					Jurisdiction	OCEANSIDE-INT#11/WITH MIT.				
Time Period	AM PEAK					Analysis Year	BO.ALT.-1/NO PROJECT				

Volume and Timing Input														
			EB			WB			NB			SB		
			LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes			2	2	1	2	2	1	1	3	2	2	3	0
Lane group			L	T	R	L	T	R	L	T	R	L	TR	
Volume (vph)			55	135	255	440	110	340	110	840	795	45	1400	45
% Heavy veh			2	2	2	2	2	2	2	2	2	2	2	2
PHF			0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)			A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time			2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Ext. eff. green			2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Arrival type			5	5	5	5	5	5	5	5	5	5	5	
Unit Extension			3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume			5	5	0	5	5	123	5	5	0	5	5	0
Lane Width			12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking			N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr														
Bus stops/hr			0	0	0	0	0	0	0	0	0	0	0	
Unit Extension			3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Phasing	Excl. Left	WB Only	Thru & RT	04			Excl. Left	Thru & RT	07			08		
Timing	G = 4.0	G = 8.0	G = 7.0	G =			G = 9.5	G = 42.0	G =			G =		
	Y = 5.6	Y = 5.6	Y = 6.4	Y =			Y = 5.6	Y = 6.3	Y =			Y =		
Duration of Analysis (hrs) = 0.25									Cycle Length C = 100.0					

Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	58	142	268	463	116	228	116	884	837	47	1521	
Lane group cap.	137	248	349	605	731	318	168	2131	1423	327	2120	
v/c ratio	0.42	0.57	0.77	0.77	0.16	0.72	0.69	0.41	0.59	0.14	0.72	
Green ratio	0.04	0.07	0.23	0.18	0.21	0.21	0.09	0.42	0.52	0.09	0.42	
Unif. delay d1	46.9	45.1	36.1	39.2	32.6	37.0	43.8	20.4	16.4	41.5	24.1	
Delay factor k	0.11	0.17	0.32	0.32	0.11	0.28	0.26	0.11	0.18	0.11	0.28	
Increm. delay d2	2.1	3.2	9.9	5.8	0.1	7.6	11.4	0.1	0.6	0.2	1.2	
PF factor	0.972	0.950	0.802	0.858	0.827	0.827	0.930	0.517	0.269	0.930	0.517	
Control delay	47.7	46.0	38.9	39.5	27.1	38.1	52.2	10.7	5.1	38.8	13.6	
Lane group LOS	D	D	D	D	C	D	D	B	A	D	B	
Apprch. delay	42.1			37.3			10.7			14.4		
Approach LOS	D			D			B			B		
Intersec. delay	19.7			Intersection LOS						B		

WITH MIT, NB 2- RT LANES /WB ADD RTD LANE.

SHORT REPORT												
General Information							Site Information					
Analyst	USAI						Intersection COLLEGE BLVD.@ VISTA WAY					
Agency or Co.	USAI						Area Type All other areas					
Date Performed	08/24/12						Jurisdiction OCEANSIDE-INT#11/WITH MIT.					
Time Period	AM PEAK						Analysis Year BO.ALT.-1/WITH PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	2	1	2	2	1	1	3	2	2	3	0
Lane group	L	T	R	L	T	R	L	T	R	L	TR	
Volume (vph)	55	135	256	461	110	340	113	875	814	45	1410	45
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Arrival type	5	5	5	5	5	5	5	5	5	5	5	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	5	5	0	5	5	123	5	5	0	5	5	0
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0	0	0	0	0	0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Phasing	Excl. Left	WB Only	Thru & RT	04			Excl. Left	Thru & RT	07			08
Timing	G = 4.0	G = 8.0	G = 7.0	G =			G = 9.5	G = 42.0	G =			G =
	Y = 5.6	Y = 5.6	Y = 6.4	Y =			Y = 5.6	Y = 6.3	Y =			Y =
Duration of Analysis (hrs) = 0.25									Cycle Length C = 100.0			
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	58	142	269	485	116	228	119	921	857	47	1531	
Lane group cap.	137	248	349	605	731	318	168	2131	1423	327	2120	
v/c ratio	0.42	0.57	0.77	0.80	0.16	0.72	0.71	0.43	0.60	0.14	0.72	
Green ratio	0.04	0.07	0.23	0.18	0.21	0.21	0.09	0.42	0.52	0.09	0.42	
Unif. delay d1	46.9	45.1	36.1	39.5	32.6	37.0	43.9	20.6	16.6	41.5	24.1	
Delay factor k	0.11	0.17	0.32	0.35	0.11	0.28	0.27	0.11	0.19	0.11	0.28	
Increm. delay d2	2.1	3.2	10.1	7.6	0.1	7.6	12.9	0.1	0.7	0.2	1.2	
PF factor	0.972	0.950	0.802	0.858	0.827	0.827	0.930	0.517	0.269	0.930	0.517	
Control delay	47.7	46.0	39.1	41.5	27.1	38.1	53.7	10.8	5.2	38.8	13.7	
Lane group LOS	D	D	D	D	C	D	D	B	A	D	B	
Apprch. delay	42.2			38.6			10.9			14.5		
Approach LOS	D			D			B			B		
Intersec. delay	20.0			Intersection LOS						B		

WITH MIT: NB ADD RTOLANE / WB ADD RTOLANE.

SHORT REPORT													
General Information							Site Information						
Analyst	USAI						Intersection	COLLEGE BLVD.@ VISTA WAY					
Agency or Co.	USAI						Area Type	All other areas					
Date Performed	08/22/12						Jurisdiction	OCEANSIDE-INT#11/WITH MIT.					
Time Period	PM PEAK						Analysis Year	BO.ALT.-1/NO PROJECT					
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	2	2	1	2	2	1	1	3	2	2	3	0	
Lane group	L	T	R	L	T	R	L	T	R	L	TR		
Volume (vph)	115	120	310	450	285	425	255	1420	660	45	1170	100	
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		
Arrival type	5	5	5	5	5	5	5	5	5	5	5		
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		
Ped/Bike/RTOR Volume	5	5	10	5	5	65	5	5	0	5	5	0	
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0	0	0	0	0	0	0	0	0	0		
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		
Phasing	Excl. Left	WB Only	Thru & RT	04			Excl. Left	NB Only	Thru & RT	08			
Timing	G = 6.0	G = 16.0	G = 10.0	G =			G = 7.0	G = 5.0	G = 31.1	G =			
	Y = 5.6	Y = 5.6	Y = 6.3	Y =			Y = 5.6	Y = 5.6	Y = 6.2	Y =			
Duration of Analysis (hrs) = 0.25							Cycle Length C = 110.0						
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	121	126	316	474	300	379	268	1495	695	47	1337		
Lane group cap.	187	322	324	862	1019	445	283	1924	1868	219	1415		
v/c ratio	0.65	0.39	0.98	0.55	0.29	0.85	0.95	0.78	0.37	0.21	0.94		
Green ratio	0.05	0.09	0.21	0.25	0.29	0.29	0.16	0.38	0.69	0.06	0.28		
Unif. delay d1	51.0	47.1	43.1	35.8	30.5	37.0	45.7	30.1	7.3	48.9	38.6		
Delay factor k	0.22	0.11	0.48	0.15	0.11	0.38	0.46	0.33	0.11	0.11	0.46		
Increm. delay d2	7.6	0.8	43.2	0.8	0.2	14.6	39.3	2.1	0.1	0.5	13.1		
PF factor	0.962	0.933	0.821	0.777	0.731	0.731	0.873	0.593	0.159	0.955	0.737		
Control delay	56.6	44.8	78.5	28.6	22.5	41.7	79.3	19.9	1.3	47.2	41.5		
Lane group LOS	E	D	E	C	C	D	E	B	A	D	D		
Apprch. delay	66.3			31.3			21.1			41.7			
Approach LOS	E			C			C			D			
Intersec. delay	32.9			Intersection LOS						C			

WITH MITIGATION: NB ADD RT LANE / WB ADD RT LANE

SHORT REPORT												
General Information							Site Information					
Analyst	USAI						Intersection COLLEGE BLVD.@ VISTA WAY					
Agency or Co.	USAI						Area Type All other areas					
Date Performed	08/22/12						Jurisdiction OCEANSIDE-INT#11/WITH MIT.					
Time Period	PM PEAK						Analysis Year BO.ALT.-1/WITH PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	2	1	2	2	1	1	3	2	2	3	0
Lane group	L	T	R	L	T	R	L	T	R	L	TR	
Volume (vph)	115	120	314	514	285	425	257	1440	670	45	1202	100
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Arrival type	5	5	5	5	5	5	5	5	5	5	5	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	5	5	10	5	5	65	5	5	0	5	5	0
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0	0	0	0	0	0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Phasing	Excl. Left	WB Only	Thru & RT	04			Excl. Left	NB Only	Thru & RT	08		
Timing	G = 6.0	G = 16.0	G = 10.0	G =			G = 7.0	G = 5.0	G = 31.1	G =		
	Y = 5.6	Y = 5.6	Y = 6.3	Y =			Y = 5.6	Y = 5.6	Y = 6.2	Y =		
Duration of Analysis (hrs) = 0.25							Cycle Length C = 110.0					
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	121	126	320	541	300	379	271	1516	705	47	1370	
Lane group cap.	187	322	324	862	1019	445	283	1924	1868	219	1416	
v/c ratio	0.65	0.39	0.99	0.63	0.29	0.85	0.96	0.79	0.38	0.21	0.97	
Green ratio	0.05	0.09	0.21	0.25	0.29	0.29	0.16	0.38	0.69	0.06	0.28	
Unif. delay d1	51.0	47.1	43.2	36.6	30.5	37.0	45.8	30.2	7.3	48.9	39.0	
Delay factor k	0.22	0.11	0.49	0.21	0.11	0.38	0.47	0.33	0.11	0.11	0.47	
Increm. delay d2	7.6	0.8	46.5	1.5	0.2	14.6	41.9	2.3	0.1	0.5	16.7	
PF factor	0.962	0.933	0.821	0.777	0.731	0.731	0.873	0.593	0.159	0.955	0.737	
Control delay	56.6	44.8	82.0	29.9	22.5	41.7	82.0	20.2	1.3	47.2	45.5	
Lane group LOS	E	D	F	C	C	D	F	C	A	D	D	
Apprch. delay	68.3			31.7			21.6			45.5		
Approach LOS	E			C			C			D		
Intersec. delay	34.4			Intersection LOS						C		

SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	COLLEGE BLVD.@ SR-78EB OFF-RAM					
Agency or Co.	USAI					Area Type	All other areas					
Date Performed	08/22/12					Jurisdiction	OCEANSIDE-INT.#12					
Time Period	AM PEAK					Analysis Year	BO.ALT-1/NO PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	0	1	0	0	0	0	4	0	0	4	0
Lane group	L		R					T			T	
Volume (vph)	630		225					1115			1665	
% Heavy veh	2		2					2			2	
PHF	0.95		0.95					0.95			0.95	
Actuated (P/A)	A		A					A			A	
Startup lost time	3.0		3.0					3.0			3.0	
Ext. eff. green	2.0		2.0					2.0			2.0	
Arrival type	3		3					5			5	
Unit Extension	3.0		3.0					3.0			3.0	
Ped/Bike/RTOR Volume	5	10	0	5								
Lane Width	12.0		12.0					12.0			12.0	
Parking/Grade/Parking	N	0	N	N		N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0		0					0			0	
Unit Extension	3.0		3.0					3.0			3.0	
Phasing	EB Only	02	03	04	Thru Only	06	07	08				
Timing	G = 26.0	G =	G =	G =	G = 62.7	G =	G =	G =				
	Y = 5	Y =	Y =	Y =	Y = 6.3	Y =	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 100.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	663		237					1174			1753	
Lane group cap.	903		393					4173			4173	
v/c ratio	0.73		0.60					0.28			0.42	
Green ratio	0.25		0.25					0.62			0.62	
Unif. delay d1	34.4		33.1					8.9			9.9	
Delay factor k	0.29		0.19					0.11			0.11	
Increm. delay d2	3.1		2.6					0.0			0.1	
PF factor	1.000		1.000					0.131			0.131	
Control delay	37.6		35.7					1.2			1.4	
Lane group LOS	D		D					A			A	
Apprch. delay	37.1						1.2			1.4		
Approach LOS	D						A			A		
Intersec. delay	9.7			Intersection LOS						A		

SHORT REPORT													
General Information							Site Information						
Analyst	USAI						Intersection	COLLEGE BLVD.@ SR-78EB OFF-RAM					
Agency or Co.	USAI						Area Type	All other areas					
Date Performed	08/22/12						Jurisdiction	OCEANSIDE-INT.#12					
Time Period	AM PEAK						Analysis Year	BO.ALT-1/WITH PROJECT					
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	2	0	1	0	0	0	0	4	0	0	4	0	
Lane group	L		R					T			T		
Volume (vph)	630		225					1166			1697		
% Heavy veh	2		2					2			2		
PHF	0.95		0.95					0.95			0.95		
Actuated (P/A)	A		A					A			A		
Startup lost time	3.0		3.0					3.0			3.0		
Ext. eff. green	2.0		2.0					2.0			2.0		
Arrival type	3		3					5			5		
Unit Extension	3.0		3.0					3.0			3.0		
Ped/Bike/RTOR Volume	5	10	0	5									
Lane Width	12.0		12.0					12.0			12.0		
Parking/Grade/Parking	N	0	N	N		N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0		0					0			0		
Unit Extension	3.0		3.0					3.0			3.0		
Phasing	EB Only	02	03	04	Thru Only	06	07	08					
Timing	G = 26.0	G =	G =	G =	G = 62.7	G =	G =	G =					
	Y = 5	Y =	Y =	Y =	Y = 6.3	Y =	Y =	Y =					
Duration of Analysis (hrs) = 0.25				Cycle Length C = 100.0									
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	663		237					1227			1786		
Lane group cap.	859		386					4174			4174		
v/c ratio	0.77		0.61					0.29			0.43		
Green ratio	0.25		0.25					0.62			0.62		
Unif. delay d1	34.8		33.2					9.0			10.0		
Delay factor k	0.32		0.20					0.11			0.11		
Increm. delay d2	4.4		2.9					0.0			0.1		
PF factor	1.000		1.000					0.131			0.131		
Control delay	39.2		36.1					1.2			1.4		
Lane group LOS	D		D					A			A		
Apprch. delay	38.4						1.2			1.4			
Approach LOS	D						A			A			
Intersec. delay	9.8			Intersection LOS						A			

SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	COLLEGE BLVD.@ SR-78EB OFF-RAM					
Agency or Co.	USAI					Area Type	All other areas					
Date Performed	08/22/12					Jurisdiction	OCEANSIDE-INT.#12					
Time Period	PM PEAK					Analysis Year	BO.ALT-1/NO PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	0	1	0	0	0	0	4	0	0	4	0
Lane group	L		R					T			T	
Volume (vph)	630		390					1705			1515	
% Heavy veh	2		2					2			2	
PHF	0.95		0.95					0.95			0.95	
Actuated (P/A)	A		A					A			A	
Startup lost time	3.0		3.0					3.0			3.0	
Ext. eff. green	2.0		2.0					2.0			2.0	
Arrival type	3		3					5			5	
Unit Extension	3.0		3.0					3.0			3.0	
Ped/Bike/RTOR Volume	5	10	0	5								
Lane Width	12.0		12.0					12.0			12.0	
Parking/Grade/Parking	N	0	N	N		N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0		0					0			0	
Unit Extension	3.0		3.0					3.0			3.0	
Phasing	EB Only	02	03	04	Thru Only	06	07	08				
Timing	G = 36.0	G =	G =	G =	G = 63.2	G =	G =	G =				
	Y = 5.2	Y =	Y =	Y =	Y = 5.6	Y =	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 110.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	663		411					1795			1595	
Lane group cap.	1149		502					3824			3902	
v/c ratio	0.58		0.82					0.47			0.41	
Green ratio	0.32		0.32					0.57			0.57	
Unif. delay d1	31.3		34.6					14.1			13.5	
Delay factor k	0.17		0.36					0.11			0.11	
Increm. delay d2	0.7		10.3					0.1			0.1	
PF factor	1.000		1.000					0.132			0.132	
Control delay	32.0		44.9					2.0			1.9	
Lane group LOS	C		D					A			A	
Apprch. delay	37.0						2.0			1.9		
Approach LOS	D						A			A		
Intersec. delay	10.3			Intersection LOS						B		

SHORT REPORT												
General Information						Site Information						
Analyst	USAI					COLLEGE BLVD.@ SR-78EB OFF-RAM						
Agency or Co.	USAI					All other areas						
Date Performed	08/22/12					OCEANSIDE-INT.#12						
Time Period	PM PEAK					BO.ALT-1/WITH PROJECT						
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	0	1	0	0	0	0	4	0	0	4	0
Lane group	L		R					T			T	
Volume (vph)	630		390					1732			1615	
% Heavy veh	2		2					2			2	
PHF	0.95		0.95					0.95			0.95	
Actuated (P/A)	A		A					A			A	
Startup lost time	3.0		3.0					3.0			3.0	
Ext. eff. green	2.0		2.0					2.0			2.0	
Arrival type	3		3					5			5	
Unit Extension	3.0		3.0					3.0			3.0	
Ped/Bike/RTOR Volume	5	10	0	5								
Lane Width	12.0		12.0					12.0			12.0	
Parking/Grade/Parking	N	0	N	N		N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0		0					0			0	
Unit Extension	3.0		3.0					3.0			3.0	
Phasing	EB Only	02	03	04	Thru Only	06	07	08				
Timing	G = 36.0	G =	G =	G =	G = 63.2	G =	G =	G =				
	Y = 5.2	Y =	Y =	Y =	Y = 5.6	Y =	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 110.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	663		411					1823			1700	
Lane group cap.	1094		492					3825			3825	
v/c ratio	0.61		0.84					0.48			0.44	
Green ratio	0.32		0.32					0.57			0.57	
Unif. delay d1	31.7		34.8					14.2			13.9	
Delay factor k	0.19		0.37					0.11			0.11	
Increm. delay d2	1.0		11.9					0.1			0.1	
PF factor	1.000		1.000					0.132			0.132	
Control delay	32.6		46.7					2.0			1.9	
Lane group LOS	C		D					A			A	
Apprch. delay	38.0						2.0			1.9		
Approach LOS	D						A			A		
Intersec. delay	10.4			Intersection LOS						B		

SHORT REPORT												
General Information							Site Information					
Analyst	USAI						Intersection COLLEGE BLVD.@ PLAZA DR.					
Agency or Co.	USAI						Area Type All other areas					
Date Performed	08/25/12						Jurisdiction OCEANSIDE-INT.#13/NO MITIGATION					
Time Period	AM PEAK						Analysis Year BO.ALT.-1/NO PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	1	0	1	1	1	1	3	0	2	3	0
Lane group	L	TR		L	T	R	L	TR		L	TR	
Volume (vph)	85	70	15	115	15	210	45	820	295	565	1210	115
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Ext. eff. green	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Arrival type	4	4		4	4	4	5	5		5	5	
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	5		0	5	10	0	5	10	56	5	10	0
Lane Width	12.0	12.0		12.0	12.0	12.0	12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0	0	0	0		0	0	
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Phasing	EB Only	WB Only	03	04	Excl. Left	SB Only	Thru & RT	08				
Timing	G = 12.0	G = 8.0	G =	G =	G = 10.0	G = 19.0	G = 31.0	G =				
	Y = 4	Y = 4	Y =	Y =	Y = 4	Y = 4	Y = 4	Y =				
Duration of Analysis (hrs) = 0.25			Cycle Length C = 100.0									
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	89	90		121	16	221	47	1115		595	1395	
Lane group cap.	195	199		122	130	319	159	1463		1100	2647	
v/c ratio	0.46	0.45		0.99	0.12	0.69	0.30	0.76		0.54	0.53	
Green ratio	0.11	0.11		0.07	0.07	0.21	0.09	0.30		0.32	0.53	
Unif. delay d1	41.7	41.7		46.5	43.6	36.5	42.5	31.8		28.0	15.3	
Delay factor k	0.11	0.11		0.49	0.11	0.26	0.11	0.31		0.14	0.13	
Increm. delay d2	1.7	1.6		78.8	0.4	6.3	1.0	2.4		0.5	0.2	
PF factor	1.000	1.000		1.000	1.000	1.000	0.934	0.714		0.686	0.248	
Control delay	43.4	43.3		125.3	44.0	42.9	40.8	25.1		19.7	4.0	
Lane group LOS	D	D		F	D	D	D	C		B	A	
Apprch. delay	43.4			70.8			25.7			8.7		
Approach LOS	D			E			C			A		
Intersec. delay	21.8			Intersection LOS						C		

SHORT REPORT												
General Information							Site Information					
Analyst	USAI						Intersection COLLEGE BLVD.@ PLAZA DR.					
Agency or Co.	USAI						Area Type All other areas					
Date Performed	08/25/12						Jurisdiction OCEANSIDE-INT.#13/NO MITIGATIO					
Time Period	AM PEAK						Analysis Year BO.ALT.-1/WITH PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	1	0	1	1	1	1	3	0	2	3	0
Lane group	L	TR		L	T	R	L	TR		L	TR	
Volume (vph)	110	100	58	118	21	210	61	846	326	565	1222	136
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Ext. eff. green	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Arrival type	4	4		4	4	4	5	5		5	5	
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	5		0	5	10	0	5	10	56	5	10	0
Lane Width	12.0	12.0		12.0	12.0	12.0	12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0	0	0	0		0	0	
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Phasing	EB Only	WB Only	03	04	Excl. Left	SB Only	Thru & RT	08				
Timing	G = 12.0	G = 8.0	G =	G =	G = 10.0	G = 19.0	G = 31.0	G =				
	Y = 4	Y = 4	Y =	Y =	Y = 4	Y = 4	Y = 4	Y =				
Duration of Analysis (hrs) = 0.25			Cycle Length C = 100.0									
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	116	166		124	22	221	64	1175		595	1429	
Lane group cap.	195	194		122	130	319	159	1459		1100	2640	
v/c ratio	0.59	0.86		1.02	0.17	0.69	0.40	0.81		0.54	0.54	
Green ratio	0.11	0.11		0.07	0.07	0.21	0.09	0.30		0.32	0.53	
Unif. delay d1	42.4	43.7		46.5	43.8	36.5	43.0	32.3		28.0	15.5	
Delay factor k	0.18	0.39		0.50	0.11	0.26	0.11	0.35		0.14	0.14	
Increm. delay d2	4.9	29.4		85.9	0.6	6.3	1.7	3.4		0.5	0.2	
PF factor	1.000	1.000		1.000	1.000	1.000	0.934	0.714		0.686	0.248	
Control delay	47.2	73.1		132.4	44.4	42.9	41.8	26.5		19.7	4.1	
Lane group LOS	D	E		F	D	D	D	C		B	A	
Apprch. delay	62.4			73.2			27.3			8.7		
Approach LOS	E			E			C			A		
Intersec. delay	24.5			Intersection LOS						C		

SHORT REPORT												
General Information							Site Information					
Analyst	USAI						COLLEGE BLVD.@ PLAZA					
Agency or Co.	USAI						DR.					
Date Performed	08/22/12						Area Type All other areas					
Time Period	PM PEAK						Jurisdiction OCEANSIDE-INT#13/NO MITIGATION					
							Analysis Year BO.ALT.-1/NO PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	1	0	1	1	1	1	3	0	2	3	0
Lane group	L	TR		L	T	R	L	TR		L	TR	
Volume (vph)	145	120	15	200	20	415	25	1145	380	630	1210	65
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Ext. eff. green	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Arrival type	4	4		4	4	4	5	5		5	5	
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	5		4	5	5	56	5	5	53	5	5	5
Lane Width	12.0	12.0		12.0	12.0	12.0	12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0	0	0	0		0	0	
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Phasing	EB Only	WB Only	03	04	Excl. Left	SB Only	Thru & RT	08				
Timing	G = 12.0	G = 15.0	G =	G =	G = 7.0	G = 12.0	G = 39.2	G =				
	Y = 4.2	Y = 5.6	Y =	Y =	Y = 4.2	Y = 5.2	Y = 5.6	Y =				
Duration of Analysis (hrs) = 0.25			Cycle Length C = 110.0									
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	153	138		211	21	378	26	1549		663	1337	
Lane group cap.	177	184		223	237	600	97	1696		694	2534	
v/c ratio	0.86	0.75		0.95	0.09	0.63	0.27	0.91		0.96	0.53	
Green ratio	0.10	0.10		0.13	0.13	0.39	0.05	0.35		0.20	0.50	
Unif. delay d1	48.8	48.2		47.6	42.4	27.2	49.9	34.3		43.4	18.5	
Delay factor k	0.39	0.31		0.46	0.11	0.21	0.11	0.43		0.47	0.13	
Increm. delay d2	33.1	15.7		45.3	0.2	2.1	1.5	8.0		23.7	0.2	
PF factor	1.000	1.000		1.000	1.000	0.906	0.962	0.645		0.831	0.324	
Control delay	81.9	63.9		92.9	42.5	26.8	49.5	30.2		59.8	6.2	
Lane group LOS	F	E		F	D	C	D	C		E	A	
Apprch. delay	73.3			50.2			30.5			23.9		
Approach LOS	E			D			C			C		
Intersec. delay	33.0			Intersection LOS						C		

SHORT REPORT												
General Information							Site Information					
Analyst	USAI						COLLEGE BLVD.@ PLAZA DR.					
Agency or Co.	USAI						Area Type All other areas					
Date Performed	08/22/12						Jurisdiction OCEANSIDE-INT#13/NO MITIGATION					
Time Period	PM PEAK						Analysis Year BO.ALT.-1/WITH PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	1	0	1	1	1	1	3	0	2	3	0
Lane group	L	TR		L	T	R	L	TR		L	TR	
Volume (vph)	158	136	38	210	37	415	70	1159	397	630	1246	134
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Ext. eff. green	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Arrival type	4	4		4	4	4	5	5		5	5	
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	5		4	5	5	56	5	5	53	5	5	5
Lane Width	12.0	12.0		12.0	12.0	12.0	12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0	0	0	0		0	0	
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Phasing	EB Only	WB Only	03	04	Excl. Left	SB Only	Thru & RT	08				
Timing	G = 12.0	G = 15.0	G =	G =	G = 7.0	G = 12.0	G = 39.2	G =				
	Y = 4.2	Y = 5.6	Y =	Y =	Y = 4.2	Y = 5.2	Y = 5.6	Y =				
Duration of Analysis (hrs) = 0.25			Cycle Length C = 110.0									
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	166	179		221	39	378	74	1582		663	1448	
Lane group cap.	177	181		223	237	600	97	1694		694	2513	
v/c ratio	0.94	0.99		0.99	0.16	0.63	0.76	0.93		0.96	0.58	
Green ratio	0.10	0.10		0.13	0.13	0.39	0.05	0.35		0.20	0.50	
Unif. delay d1	49.2	49.4		47.9	42.8	27.2	51.3	34.7		43.4	19.1	
Delay factor k	0.45	0.49		0.49	0.11	0.21	0.32	0.45		0.47	0.17	
Increm. delay d2	49.8	63.5		57.6	0.3	2.1	29.5	10.1		23.7	0.3	
PF factor	1.000	1.000		1.000	1.000	0.906	0.962	0.645		0.831	0.324	
Control delay	99.0	112.9		105.5	43.1	26.8	78.8	32.4		59.8	6.5	
Lane group LOS	F	F		F	D	C	E	C		E	A	
Apprch. delay	106.2			55.0			34.5			23.2		
Approach LOS	F			E			C			C		
Intersec. delay	37.5			Intersection LOS						D		

MITIGAND NB RTO LANE

SHORT REPORT

General Information						Site Information					
Analyst	USAI					Intersection	COLLEGE BLVD.@ PLAZA DR.				
Agency or Co.	USAI					Area Type	All other areas				
Date Performed	08/25/12					Jurisdiction	OCEANSIDE-INT.#13/WITH MITIGAT				
Time Period	AM PEAK					Analysis Year	BO.ALT.-1/NO PROJECT				

Volume and Timing Input														
			EB			WB			NB			SB		
			LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes			1	1	0	1	1	1	1	3	1	2	3	0
Lane group			L	TR		L	T	R	L	T	R	L	TR	
Volume (vph)			85	70	15	115	15	210	45	820	295	565	1210	115
% Heavy veh			2	2	2	2	2	2	2	2	2	2	2	2
PHF			0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)			A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time			3.0	3.0		3.0	3.0	3.0	3.0	3.0	2.0	3.0	3.0	
Ext. eff. green			2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Arrival type			4	4		4	4	4	5	5	5	5	5	
Unit Extension			3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume			5		0	5	10	0	5	10	56	5	10	0
Lane Width			12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking			N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr														
Bus stops/hr			0	0		0	0	0	0	0	0	0	0	
Unit Extension			3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Phasing	EB Only	WB Only	03			04		Excl. Left		SB Only		Thru & RT		08
Timing	G = 12.0	G = 8.0	G =			G =		G = 10.0		G = 19.0		G = 31.0		G =
	Y = 4	Y = 4	Y =			Y =		Y = 4		Y = 4		Y = 4		Y =
Duration of Analysis (hrs) = 0.25										Cycle Length C = 100.0				

Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	89	90		121	16	221	47	863	252	595	1395	
Lane group cap.	195	199		122	130	319	159	1522	479	1100	2647	
v/c ratio	0.46	0.45		0.99	0.12	0.69	0.30	0.57	0.53	0.54	0.53	
Green ratio	0.11	0.11		0.07	0.07	0.21	0.09	0.30	0.31	0.32	0.53	
Unif. delay d1	41.7	41.7		46.5	43.6	36.5	42.5	29.5	28.4	28.0	15.3	
Delay factor k	0.11	0.11		0.49	0.11	0.26	0.11	0.16	0.13	0.14	0.13	
Increm. delay d2	1.7	1.6		78.8	0.4	6.3	1.0	0.5	1.1	0.5	0.2	
PF factor	1.000	1.000		1.000	1.000	1.000	0.934	0.714	0.700	0.686	0.248	
Control delay	43.4	43.3		125.3	44.0	42.9	40.8	21.6	21.0	19.7	4.0	
Lane group LOS	D	D		F	D	D	D	C	C	B	A	
Apprch. delay	43.4			70.8			22.2			8.7		
Approach LOS	D			E			C			A		
Intersec. delay	20.7			Intersection LOS						C		

MIT: ADD NB RT0 LANE

SHORT REPORT

General Information						Site Information					
Analyst	USAI					Intersection	COLLEGE BLVD.@ PLAZA DR.				
Agency or Co.	USAI					Area Type	All other areas				
Date Performed	08/25/12					Jurisdiction	OCEANSIDE-INT.#13/WITH MITIGAT				
Time Period	AM PEAK					Analysis Year	BO.ALT.-1/WITH PROJECT				

Volume and Timing Input														
			EB			WB			NB			SB		
			LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes			1	1	0	1	1	1	1	3	1	2	3	0
Lane group			L	TR		L	T	R	L	T	R	L	TR	
Volume (vph)			110	100	58	118	21	210	61	846	326	565	1222	136
% Heavy veh			2	2	2	2	2	2	2	2	2	2	2	2
PHF			0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)			A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time			3.0	3.0		3.0	3.0	3.0	3.0	3.0	2.0	3.0	3.0	
Ext. eff. green			2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Arrival type			4	4		4	4	4	5	5	5	5	5	
Unit Extension			3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume			5		0	5	10	0	5	10	56	5	10	0
Lane Width			12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking			N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr														
Bus stops/hr			0	0		0	0	0	0	0	0	0	0	
Unit Extension			3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Phasing	EB Only	WB Only	03			04		Excl. Left		SB Only		Thru & RT		08
Timing	G = 12.0	G = 8.0	G =			G =		G = 10.0		G = 19.0		G = 31.0		G =
	Y = 4	Y = 4	Y =			Y =		Y = 4		Y = 4		Y = 4		Y =
Duration of Analysis (hrs) = 0.25										Cycle Length C = 100.0				

Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	116	166		124	22	221	64	891	284	595	1429	
Lane group cap.	195	194		122	130	319	159	1522	479	1100	2640	
v/c ratio	0.59	0.86		1.02	0.17	0.69	0.40	0.59	0.59	0.54	0.54	
Green ratio	0.11	0.11		0.07	0.07	0.21	0.09	0.30	0.31	0.32	0.53	
Unif. delay d1	42.4	43.7		46.5	43.8	36.5	43.0	29.7	29.2	28.0	15.5	
Delay factor k	0.18	0.39		0.50	0.11	0.26	0.11	0.18	0.18	0.14	0.14	
Increm. delay d2	4.9	29.4		85.9	0.6	6.3	1.7	0.6	2.0	0.5	0.2	
PF factor	1.000	1.000		1.000	1.000	1.000	0.934	0.714	0.700	0.686	0.248	
Control delay	47.2	73.1		132.4	44.4	42.9	41.8	21.8	22.4	19.7	4.1	
Lane group LOS	D	E		F	D	D	D	C	C	B	A	
Apprch. delay	62.4			73.2			23.0			8.7		
Approach LOS	E			E			C			A		
Intersec. delay	23.1			Intersection LOS						C		

MIT: ADD NB RTD LANE

SHORT REPORT													
General Information							Site Information						
Analyst	USAI						Intersection	COLLEGE BLVD.@ PLAZA DR.					
Agency or Co.	USAI						Area Type	All other areas					
Date Performed	08/22/12						Jurisdiction	OCEANSIDE-INT#13/WITH MITIGATI					
Time Period	PM PEAK						Analysis Year	BO.ALT.-1/NO PROJECT					
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	1	1	0	1	1	1	1	3	1	2	3	0	
Lane group	L	TR		L	T	R	L	T	R	L	TR		
Volume (vph)	145	120	15	200	20	415	25	1145	380	630	1210	65	
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	3.0	3.0		3.0	3.0	3.0	3.0	3.0	2.0	3.0	3.0		
Ext. eff. green	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		
Arrival type	4	4		4	4	4	5	5	5	5	5		
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		
Ped/Bike/RTOR Volume	5		4	5	5	56	5	5	53	5	5	5	
Lane Width	12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0		0	0	0	0	0	0	0	0		
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		
Phasing	EB Only	WB Only	03	04	Excl. Left	SB Only	Thru & RT	08					
Timing	G = 12.0	G = 15.0	G =	G =	G = 7.0	G = 12.0	G = 39.2	G =					
	Y = 4.2	Y = 5.6	Y =	Y =	Y = 4.2	Y = 5.2	Y = 5.6	Y =					
Duration of Analysis (hrs) = 0.25								Cycle Length C = 110.0					
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	153	138		211	21	378	26	1205	344	663	1337		
Lane group cap.	177	184		223	237	600	97	1762	553	694	2534		
v/c ratio	0.86	0.75		0.95	0.09	0.63	0.27	0.68	0.62	0.96	0.53		
Green ratio	0.10	0.10		0.13	0.13	0.39	0.05	0.35	0.36	0.20	0.50		
Unif. delay d1	48.8	48.2		47.6	42.4	27.2	49.9	30.7	29.3	43.4	18.5		
Delay factor k	0.39	0.31		0.46	0.11	0.21	0.11	0.25	0.21	0.47	0.13		
Increm. delay d2	33.1	15.7		45.3	0.2	2.1	1.5	1.1	2.2	23.7	0.2		
PF factor	1.000	1.000		1.000	1.000	0.906	0.962	0.645	0.631	0.831	0.324		
Control delay	81.9	63.9		92.9	42.5	26.8	49.5	20.9	20.6	59.8	6.2		
Lane group LOS	F	E		F	D	C	D	C	C	E	A		
Apprch. delay	73.3			50.2			21.3			23.9			
Approach LOS	E			D			C			C			
Intersec. delay	29.8			Intersection LOS						C			

MIT: ADD NB RTO LANE

SHORT REPORT													
General Information							Site Information						
Analyst	USAI						Intersection	COLLEGE BLVD.@ PLAZA DR.					
Agency or Co.	USAI						Area Type	All other areas					
Date Performed	08/22/12						Jurisdiction	OCEANSIDE-INT#13/WITH MITIGATI					
Time Period	PM PEAK						Analysis Year	BO.ALT.-2/WITH PROJECT					
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	1	1	0	1	1	1	1	3	1	2	3	0	
Lane group	L	TR		L	LT	R	L	T	R	L	TR		
Volume (vph)	208	132	52	281	34	530	70	1557	404	585	1561	210	
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	3.0	3.0		3.0	3.0	3.0	3.0	3.0	2.0	3.0	3.0		
Ext. eff. green	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		
Arrival type	4	4		4	4	4	5	5	5	5	5		
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		
Ped/Bike/RTOR Volume	5		4	5	5	56	5	5	53	5	5	5	
Lane Width	12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0		0	0	0	0	0	0	0	0		
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		
Phasing	EB Only	WB Only	03	04	Excl. Left	SB Only	Thru & RT	08					
Timing	G = 12.0	G = 14.0	G =	G =	G = 7.0	G = 10.0	G = 42.2	G =					
	Y = 4.2	Y = 5.6	Y =	Y =	Y = 4.2	Y = 5.2	Y = 5.6	Y =					
Duration of Analysis (hrs) = 0.25								Cycle Length C = 110.0					
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	219	190		163	169	499	74	1639	369	616	1859		
Lane group cap.	177	179		207	210	558	97	1900	596	631	2548		
v/c ratio	1.24	1.06		0.79	0.80	0.89	0.76	0.86	0.62	0.98	0.73		
Green ratio	0.10	0.10		0.12	0.12	0.36	0.05	0.37	0.38	0.18	0.51		
Unif. delay d1	49.5	49.5		47.2	47.3	33.1	51.3	31.8	27.4	44.7	20.9		
Delay factor k	0.50	0.50		0.33	0.35	0.42	0.32	0.39	0.20	0.48	0.29		
Increm. delay d2	145.7	84.5		18.1	20.0	16.8	11.9	1.6	0.7	15.9	0.4		
PF factor	1.000	1.000		1.000	1.000	0.933	0.962	0.601	0.585	0.850	0.299		
Control delay	195.2	134.0		65.3	67.3	47.7	61.2	20.7	16.7	53.9	6.6		
Lane group LOS	F	F		E	E	D	E	C	B	D	A		
Apprch. delay	166.7			55.1			21.4			18.4			
Approach LOS	F			E			C			B			
Intersec. delay	35.2			Intersection LOS						D			

SHORT REPORT												
General Information							Site Information					
Analyst	USAI						COLLEGE BLVD.@					
Agency or Co.	USAI						MARRON RD.					
Date Performed	08/24/12						Area Type					
Time Period	AM PEAK						All other areas					
							Jurisdiction					
							OCEANSIDE-INT.#14/NO					
							MIT.					
							Analysis Year					
							BO.ALT.-1/NO PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	1	1	1	1	1	2	2	1	2	2	0
Lane group	L	T	R	L	T	R	L	T	R	L	T	
Volume (vph)	140	150	110	410	192	335	260	690	235	215	1205	
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Arrival type	4	4	4	4	4	4	5	5	5	5	5	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	5	5	0	5	5	0	5	5	0	5		
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0	0	0	0	0	0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Phasing	Excl. Left	WB Only	Thru & RT	04			Excl. Left	SB Only	Thru & RT	08		
Timing	G = 11.0	G = 10.0	G = 10.0	G =			G = 9.0	G = 9.0	G = 27.0	G =		
	Y = 4	Y = 4	Y = 4	Y =			Y = 4	Y = 4	Y = 4	Y =		
Duration of Analysis (hrs) = 0.25							Cycle Length C = 100.0					
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	152	163	120	446	209	364	283	750	255	234	1310	
Lane group cap.	378	186	353	443	447	574	309	958	870	756	1419	
v/c ratio	0.40	0.88	0.34	1.01	0.47	0.63	0.92	0.78	0.29	0.31	0.92	
Green ratio	0.11	0.10	0.23	0.25	0.24	0.37	0.09	0.27	0.56	0.22	0.40	
Unif. delay d1	41.4	44.4	32.2	37.5	32.5	25.9	45.1	33.8	11.6	32.6	28.5	
Delay factor k	0.11	0.40	0.11	0.50	0.11	0.21	0.43	0.33	0.11	0.11	0.44	
Increm. delay d2	0.7	34.3	0.6	44.5	0.8	2.3	30.5	4.3	0.2	0.2	10.3	
PF factor	1.000	1.000	1.000	1.000	1.000	0.925	0.934	0.753	0.152	0.812	0.556	
Control delay	42.1	78.7	32.7	82.0	33.3	26.3	72.7	29.7	1.9	26.7	26.2	
Lane group LOS	D	E	C	F	C	C	E	C	A	C	C	
Apprch. delay	53.2			52.1			33.7			26.3		
Approach LOS	D			D			C			C		
Intersec. delay	37.4			Intersection LOS						D		

SHORT REPORT												
General Information							Site Information					
Analyst	USAI						COLLEGE BLVD.@					
Agency or Co.	USAI						MARRON RD.					
Date Performed	08/24/12						Area Type					
Time Period	AM PEAK						All other areas					
							Jurisdiction					
							OCEANSIDE-INT.#13/NO					
							MITIGATION					
							Analysis Year					
							BO.ALT.-1/WITH PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	1	1	1	1	1	2	2	1	2	2	0
Lane group	L	T	R	L	T	R	L	T	R	L	T	
Volume (vph)	197	157	148	410	195	337	274	704	235	222	1242	
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Arrival type	4	4	4	4	4	4	5	5	5	5	5	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	5	5	0	5	5	0	5	5	0	5		
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0	0	0	0	0	0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Phasing	Excl. Left	WB Only	Thru & RT	04			Excl. Left	SB Only	Thru & RT	08		
Timing	G = 11.0	G = 10.0	G = 10.0	G =			G = 9.0	G = 9.0	G = 27.0	G =		
	Y = 4	Y = 4	Y = 4	Y =			Y = 4	Y = 4	Y = 4	Y =		
Duration of Analysis (hrs) = 0.25							Cycle Length C = 100.0					
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	214	171	161	446	212	366	298	765	255	241	1350	
Lane group cap.	378	186	353	443	447	574	309	958	870	756	1419	
v/c ratio	0.57	0.92	0.46	1.01	0.47	0.64	0.96	0.80	0.29	0.32	0.95	
Green ratio	0.11	0.10	0.23	0.25	0.24	0.37	0.09	0.27	0.56	0.22	0.40	
Unif. delay d1	42.2	44.6	33.1	37.5	32.6	26.0	45.3	34.0	11.6	32.7	29.1	
Delay factor k	0.16	0.44	0.11	0.50	0.11	0.22	0.47	0.34	0.11	0.11	0.46	
Increm. delay d2	2.0	43.7	0.9	44.5	0.8	2.4	41.5	4.8	0.2	0.2	14.0	
PF factor	1.000	1.000	1.000	1.000	1.000	0.925	0.934	0.753	0.152	0.812	0.556	
Control delay	44.2	88.3	34.1	82.0	33.4	26.4	83.9	30.4	1.9	26.8	30.1	
Lane group LOS	D	F	C	F	C	C	F	C	A	C	C	
Approch. delay	55.0			52.0			37.0			29.6		
Approach LOS	E			D			D			C		
Intersec. delay	40.0			Intersection LOS						D		

SHORT REPORT												
General Information							Site Information					
Analyst	USAI						Intersection	COLLEGE BLVD.@				
Agency or Co.	USAI							MARRON RD.				
Date Performed	08/22/12						Area Type	All other areas				
Time Period	PM PEAK						Jurisdiction	OCEANSIDE-INT.#14				
							Analysis Year	BO.ALT.-1/NO PROJECT				
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	1	1	1	1	1	2	2	1	2	2	0
Lane group	L	T	R	L	T	R	L	T	R	L	T	
Volume (vph)	510	300	270	255	167	295	290	1210	585	425	795	
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Arrival type	5	5	5	5	5	5	5	5	5	5	5	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5		
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0	0	0	0	0	0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Phasing	Excl. Left	Thru & RT	03		04		Excl. Left	Thru & RT	07		08	
Timing	G = 17.5	G = 15.0	G =		G =		G = 14.0	G = 37.5	G =		G =	
	Y = 3	Y = 4.5	Y =		Y =		Y = 3	Y = 5	Y =		Y =	
Duration of Analysis (hrs) = 0.25							Cycle Length C = 99.5					
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	554	326	293	277	182	321	315	1315	636	462	864	
Lane group cap.	570	262	502	294	262	502	449	1301	568	449	1301	
v/c ratio	0.97	1.24	0.58	0.94	0.69	0.64	0.70	1.01	1.12	1.03	0.66	
Green ratio	0.17	0.14	0.33	0.17	0.14	0.33	0.13	0.37	0.37	0.13	0.37	
Unif. delay d1	41.3	42.8	27.9	41.0	40.7	28.5	41.4	31.5	31.5	43.3	26.4	
Delay factor k	0.48	0.50	0.18	0.45	0.26	0.22	0.27	0.50	0.50	0.50	0.24	
Increm. delay d2	30.6	137.8	1.7	37.3	7.7	2.7	4.9	27.6	75.1	50.1	1.3	
PF factor	0.867	0.891	0.677	0.867	0.891	0.677	0.900	0.614	0.614	0.900	0.614	
Control delay	66.4	175.9	20.6	72.9	44.0	22.0	42.1	47.0	94.5	89.0	17.5	
Lane group LOS	E	F	C	E	D	C	D	D	F	F	B	
Approch. delay	85.4			45.2			59.6			42.4		
Approach LOS	F			D			E			D		
Intersec. delay	58.9			Intersection LOS						E		

SHORT REPORT													
General Information						Site Information							
Analyst	USAI					Intersection	COLLEGE BLVD.@						
Agency or Co.	USAI					Area Type	MARRON RD.						
Date Performed	08/22/12					Jurisdiction	All other areas						
Time Period	PM PEAK					Analysis Year	OCEANSIDE-INT.#14						
						BO.ALT.-1/WITH PROJECT							
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	2	1	1	1	1	1	2	2	1	2	2	0	
Lane group	L	T	R	L	T	R	L	T	R	L	T		
Volume (vph)	541	304	290	255	175	302	332	1251	585	428	815		
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2		
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92		
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		
Arrival type	5	5	5	5	5	5	5	5	5	5	5		
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5			
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0	0	0	0	0	0	0	0	0	0		
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		
Phasing	Excl. Left	Thru & RT	03		04		Excl. Left	Thru & RT	07		08		
Timing	G = 17.5	G = 15.0	G =		G =		G = 14.0	G = 37.5	G =		G =		
	Y = 3	Y = 4.5	Y =		Y =		Y = 3	Y = 5	Y =		Y =		
Duration of Analysis (hrs) = 0.25						Cycle Length C = 99.5							
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	588	330	315	277	190	328	361	1360	636	465	886		
Lane group cap.	570	262	502	294	262	502	449	1301	568	449	1301		
v/c ratio	1.03	1.26	0.63	0.94	0.73	0.65	0.80	1.05	1.12	1.04	0.68		
Green ratio	0.17	0.14	0.33	0.17	0.14	0.33	0.13	0.37	0.37	0.13	0.37		
Unif. delay d1	41.5	42.8	28.4	41.0	40.9	28.7	42.0	31.5	31.5	43.3	26.6		
Delay factor k	0.50	0.50	0.21	0.45	0.29	0.23	0.35	0.50	0.50	0.50	0.25		
Increm. delay d2	46.0	143.9	2.5	37.3	9.6	3.0	10.2	37.7	75.1	52.0	1.5		
PF factor	0.867	0.891	0.677	0.867	0.891	0.677	0.900	0.614	0.614	0.900	0.614		
Control delay	82.0	181.9	21.7	72.9	46.1	22.4	48.0	57.0	94.5	90.9	17.8		
Lane group LOS	F	F	C	E	D	C	D	E	F	F	B		
Approch. delay	93.4			45.7			65.7			42.9			
Approach LOS	F			D			E			D			
Intersec. delay	63.5			Intersection LOS							E		

MIT: ADD 2ND NB RTG LANE

SHORT REPORT

General Information						Site Information					
Analyst	USAI					Intersection	COLLEGE BLVD. @ MARRON RD.				
Agency or Co.	USAI					Area Type	All other areas				
Date Performed	08/24/12					Jurisdiction	OCEANSIDE-INT.#14/WITH MIT.				
Time Period	AM PEAK					Analysis Year	BO.ALT.-1/NO PROJECT				

Volume and Timing Input														
			EB			WB			NB			SB		
			LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes			2	1	1	1	1	1	2	2	2	2	2	0
Lane group			L	T	R	L	T	R	L	T	R	L	T	
Volume (vph)			140	150	110	410	192	335	260	690	235	215	1205	
% Heavy veh			2	2	2	2	2	2	2	2	2	2		
PHF			0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92		
Actuated (P/A)			A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time			2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		
Ext. eff. green			2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		
Arrival type			4	4	4	4	4	4	5	5	5	5		
Unit Extension			3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		
Ped/Bike/RTOR Volume			5	5	0	5	5	0	5	5	0	5		
Lane Width			12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		
Parking/Grade/Parking			N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr														
Bus stops/hr			0	0	0	0	0	0	0	0	0	0		
Unit Extension			3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		
Phasing	Excl. Left	WB Only	Thru & RT	04			Excl. Left	SB Only	Thru & RT	08				
Timing	G = 11.0	G = 10.0	G = 10.0	G =			G = 9.0	G = 9.0	G = 27.0	G =				
	Y = 4	Y = 4	Y = 4	Y =			Y = 4	Y = 4	Y = 4	Y =				
Duration of Analysis (hrs) = 0.25									Cycle Length C = 100.0					

Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	152	163	120	446	209	364	283	750	255	234	1310	
Lane group cap.	378	186	353	443	447	574	309	958	1519	756	1419	
v/c ratio	0.40	0.88	0.34	1.01	0.47	0.63	0.92	0.78	0.17	0.31	0.92	
Green ratio	0.11	0.10	0.23	0.25	0.24	0.37	0.09	0.27	0.56	0.22	0.40	
Unif. delay d1	41.4	44.4	32.2	37.5	32.5	25.9	45.1	33.8	10.7	32.6	28.5	
Delay factor k	0.11	0.40	0.11	0.50	0.11	0.21	0.43	0.33	0.11	0.11	0.44	
Increm. delay d2	0.7	34.3	0.6	44.5	0.8	2.3	30.5	4.3	0.1	0.2	10.3	
PF factor	1.000	1.000	1.000	1.000	1.000	0.925	0.934	0.753	0.152	0.812	0.556	
Control delay	42.1	78.7	32.7	82.0	33.3	26.3	72.7	29.7	1.7	26.7	26.2	
Lane group LOS	D	E	C	F	C	C	E	C	A	C	C	
Apprch. delay	53.2			52.1			33.6			26.3		
Approach LOS	D			D			C			C		
Intersec. delay	37.4			Intersection LOS						D		

MITG: ADD 2ND NB RTD LANE

SHORT REPORT													
General Information							Site Information						
Analyst	USAI						Intersection	COLLEGE BLVD.@					
Agency or Co.	USAI						Area Type	MARRON RD.					
Date Performed	08/24/12						Jurisdiction	All other areas					
Time Period	AM PEAK						Analysis Year	OCEANSIDE-INT.#14/WITH					
							MITIGAT						
							BO.ALT.-1/WITH PROJECT						
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	2	1	1	1	1	1	2	2	2	2	2	0	
Lane group	L	T	R	L	T	R	L	T	R	L	T		
Volume (vph)	197	157	148	410	195	337	274	704	235	222	1242		
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2		
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92		
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		
Arrival type	4	4	4	4	4	4	5	5	5	5	5		
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		
Ped/Bike/RTOR Volume	5	5	0	5	5	0	5	5	0	5			
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0	0	0	0	0	0	0	0	0	0		
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		
Phasing	Excl. Left	WB Only	Thru & RT	04			Excl. Left	SB Only	Thru & RT	08			
Timing	G = 11.0	G = 10.0	G = 10.0	G =			G = 9.0	G = 9.0	G = 27.0	G =			
	Y = 4	Y = 4	Y = 4	Y =			Y = 4	Y = 4	Y = 4	Y =			
Duration of Analysis (hrs) = 0.25								Cycle Length C = 100.0					
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	214	171	161	446	212	366	298	765	255	241	1350		
Lane group cap.	378	186	353	443	447	574	309	958	1519	756	1419		
v/c ratio	0.57	0.92	0.46	1.01	0.47	0.64	0.96	0.80	0.17	0.32	0.95		
Green ratio	0.11	0.10	0.23	0.25	0.24	0.37	0.09	0.27	0.56	0.22	0.40		
Unif. delay d1	42.2	44.6	33.1	37.5	32.6	26.0	45.3	34.0	10.7	32.7	29.1		
Delay factor k	0.16	0.44	0.11	0.50	0.11	0.22	0.47	0.34	0.11	0.11	0.46		
Increm. delay d2	2.0	43.7	0.9	44.5	0.8	2.4	41.5	4.8	0.1	0.2	14.0		
PF factor	1.000	1.000	1.000	1.000	1.000	0.925	0.934	0.753	0.152	0.812	0.556		
Control delay	44.2	88.3	34.1	82.0	33.4	26.4	83.9	30.4	1.7	26.8	30.1		
Lane group LOS	D	F	C	F	C	C	F	C	A	C	C		
Apprch. delay	55.0			52.0			37.0			29.6			
Approach LOS	E			D			D			C			
Intersec. delay	40.0			Intersection LOS						D			

MIT. & ADD 2ND NB RT0 LANE

SHORT REPORT													
General Information							Site Information						
Analyst	USAI						Intersection	COLLEGE BLVD.@					
Agency or Co.	USAI						Area Type	MARRON RD.					
Date Performed	08/22/12						Jurisdiction	All other areas					
Time Period	PM PEAK						Analysis Year	OCEANSIDE-INT.#14/WITH					
							MITIGAT						
							BO.ALT.-1/NO PROJECT						
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	2	1	1	1	1	1	2	2	2	2	2	0	
Lane group	L	T	R	L	T	R	L	T	R	L	T		
Volume (vph)	510	300	270	255	167	295	290	1210	585	425	795		
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2		
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92		
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		
Arrival type	5	5	5	5	5	5	5	5	5	5	5		
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5			
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0	0	0	0	0	0	0	0	0	0		
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		
Phasing	Excl. Left	Thru & RT	03		04		Excl. Left	Thru & RT	07		08		
Timing	G = 17.5	G = 15.0	G =		G =		G = 14.0	G = 37.5	G =		G =		
	Y = 3	Y = 4.5	Y =		Y =		Y = 3	Y = 5	Y =		Y =		
Duration of Analysis (hrs) = 0.25									Cycle Length C = 99.5				
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	554	326	293	277	182	321	315	1315	636	462	864		
Lane group cap.	570	262	502	294	262	502	449	1301	991	449	1301		
v/c ratio	0.97	1.24	0.58	0.94	0.69	0.64	0.70	1.01	0.64	1.03	0.66		
Green ratio	0.17	0.14	0.33	0.17	0.14	0.33	0.13	0.37	0.37	0.13	0.37		
Unif. delay d1	41.3	42.8	27.9	41.0	40.7	28.5	41.4	31.5	26.1	43.3	26.4		
Delay factor k	0.48	0.50	0.18	0.45	0.26	0.22	0.27	0.50	0.22	0.50	0.24		
Increm. delay d2	30.6	137.8	1.7	37.3	7.7	2.7	4.9	27.6	1.4	50.1	1.3		
PF factor	0.867	0.891	0.677	0.867	0.891	0.677	0.900	0.614	0.614	0.900	0.614		
Control delay	66.4	175.9	20.6	72.9	44.0	22.0	42.1	47.0	17.4	89.0	17.5		
Lane group LOS	E	F	C	E	D	C	D	D	B	F	B		
Apprch. delay	85.4			45.2			38.0			42.4			
Approach LOS	F			D			D			D			
Intersec. delay	50.1			Intersection LOS						D			

M.T. & ADD 2ND NB RT0 LANE

SHORT REPORT

SHORT REPORT			
General Information		Site Information	
Analyst	USAI	Intersection	COLLEGE BLVD.@
Agency or Co.	USAI	Area Type	MARRON RD.
Date Performed	08/22/12	Jurisdiction	All other areas
Time Period	PM PEAK	Analysis Year	OCEANSIDE-INT.#14/WITH
			MITIGAT
			BO.ALT.-1/WITH PROJECT

Volume and Timing Input														
			EB			WB			NB			SB		
			LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes			2	1	1	1	1	1	2	2	2	2	2	0
Lane group			L	T	R	L	T	R	L	T	R	L	T	
Volume (vph)			541	304	290	255	175	302	332	1251	585	428	815	
% Heavy veh			2	2	2	2	2	2	2	2	2	2	2	
PHF			0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Actuated (P/A)			A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time			3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Ext. eff. green			2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Arrival type			5	5	5	5	5	5	5	5	5	5	5	
Unit Extension			3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume			5	10	0	5	10	0	5	10	0	5		
Lane Width			12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking			N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr														
Bus stops/hr			0	0	0	0	0	0	0	0	0	0	0	
Unit Extension			3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Phasing	Excl. Left	Thru & RT	03			04		Excl. Left	Thru & RT	07			08	
Timing	G = 17.5	G = 15.0	G =			G =		G = 14.0	G = 37.5	G =			G =	
	Y = 3	Y = 4.5	Y =			Y =		Y = 3	Y = 5	Y =			Y =	
Duration of Analysis (hrs) = 0.25									Cycle Length C = 99.5					

Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	588	330	315	277	190	328	361	1360	636	465	886	
Lane group cap.	570	262	502	294	262	502	449	1301	991	449	1301	
v/c ratio	1.03	1.26	0.63	0.94	0.73	0.65	0.80	1.05	0.64	1.04	0.68	
Green ratio	0.17	0.14	0.33	0.17	0.14	0.33	0.13	0.37	0.37	0.13	0.37	
Unif. delay d1	41.5	42.8	28.4	41.0	40.9	28.7	42.0	31.5	26.1	43.3	26.6	
Delay factor k	0.50	0.50	0.21	0.45	0.29	0.23	0.35	0.50	0.22	0.50	0.25	
Increm. delay d2	46.0	143.9	2.5	37.3	9.6	3.0	10.2	37.7	1.4	52.0	1.5	
PF factor	0.867	0.891	0.677	0.867	0.891	0.677	0.900	0.614	0.614	0.900	0.614	
Control delay	82.0	181.9	21.7	72.9	46.1	22.4	48.0	57.0	17.4	90.9	17.8	
Lane group LOS	F	F	C	E	D	C	D	E	B	F	B	
Apprch. delay	93.4			45.7			45.0			42.9		
Approach LOS	F			D			D			D		
Intersec. delay	55.0			Intersection LOS						D		

SHORT REPORT												
General Information							Site Information					
Analyst	USA/						COLLEGE BLVD.@					
Agency or Co.	USA/						CARLSBAD VILL.					
Date Performed	04/30/12						Area Type					
Time Period	AM PEAK						All other areas					
							Jurisdiction					
							CARLSBAD-INT.#15					
							Analysis Year					
							BO.ALT.-1/NO PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	1	1	1	1	0	1	2	0	1	2	0
Lane group	L	LT	R	L	TR		L	TR		L	TR	
Volume (vph)	350	5	70	5	10	15	60	570	5	5	1395	375
% Heavy veh	1	1	1	1	1	1	1	2	1	1	2	1
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	
Ext. eff. green	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	
Arrival type	4	4	4	4	4		5	5		5	5	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	5	5	0	5	5	0	5	5	0	5	5	150
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0		0	0		0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Phasing	EB Only	EW Perm	03	04	Excl. Left	Thru & RT	07	08				
Timing	G = 17.0	G = 10.0	G =	G =	G = 13.0	G = 60.0	G =	G =				
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 5	Y =	Y =				
Duration of Analysis (hrs) = 0.25							Cycle Length C = 120.0					
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	184	189	74	5	27		63	605		5	1705	
Lane group cap.	405	400	220	147	139		194	1771		194	1732	
v/c ratio	0.45	0.47	0.34	0.03	0.19		0.32	0.34		0.03	0.98	
Green ratio	0.27	0.27	0.14	0.08	0.08		0.11	0.50		0.11	0.50	
Unif. delay d1	36.0	36.9	46.4	50.6	51.2		49.4	18.1		47.8	29.5	
Delay factor k	0.11	0.11	0.11	0.11	0.11		0.11	0.11		0.11	0.49	
Increm. delay d2	0.8	0.9	0.9	0.1	0.7		1.0	0.1		0.1	18.0	
PF factor	1.000	1.000	1.000	1.000	1.000		0.919	0.333		0.919	0.333	
Control delay	36.8	37.8	47.3	50.7	51.9		46.4	6.1		44.0	27.8	
Lane group LOS	D	D	D	D	D		D	A		D	C	
Apprch. delay	39.0			51.7			9.9			27.9		
Approach LOS	D			D			A			C		
Intersec. delay	25.7			Intersection LOS						C		

SHORT REPORT													
General Information							Site Information						
Analyst	USA/						Intersection	COLLEGE BLVD.@					
Agency or Co.	USA/							CARLSBAD VILL.					
Date Performed	04/30/12						Area Type	All other areas					
Time Period	AM PEAK						Jurisdiction	CARLSBAD-INT.#15					
							Analysis Year	BO.ALT.-1/WITH PROJECT					
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	1	1	1	1	1	0	1	2	0	1	2	0	
Lane group	L	LT	R	L	TR		L	TR		L	TR		
Volume (vph)	356	5	70	5	10	15	60	586	5	5	1441	390	
% Heavy veh	1	1	1	1	1	1	1	2	1	1	2	1	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0		
Ext. eff. green	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0		
Arrival type	4	4	4	4	4		5	5		5	5		
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0		
Ped/Bike/RTOR Volume	5	5	0	5	5	0	5	5	0	5	5	150	
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0	0	0	0		0	0		0	0		
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0		
Phasing	EB Only	EW Perm	03	04	Excl. Left	Thru & RT	07	08					
Timing	G = 17.0	G = 10.0	G =	G =	G = 13.0	G = 60.0	G =	G =					
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 5	Y =	Y =					
Duration of Analysis (hrs) = 0.25							Cycle Length C = 120.0						
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	188	192	74	5	27		63	622		5	1770		
Lane group cap. *	405	400	220	147	139		194	1771		194	1731		
v/c ratio	0.46	0.48	0.34	0.03	0.19		0.32	0.35		0.03	1.02		
Green ratio	0.27	0.27	0.14	0.08	0.08		0.11	0.50		0.11	0.50		
Unif. delay d1	36.1	37.0	46.4	50.6	51.2		49.4	18.2		47.8	30.0		
Delay factor k	0.11	0.11	0.11	0.11	0.11		0.11	0.11		0.11	0.50		
Increm. delay d2	0.8	0.9	0.9	0.1	0.7		1.0	0.1		0.1	27.5		
PF factor	1.000	1.000	1.000	1.000	1.000		0.919	0.333		0.919	0.333		
Control delay	37.0	37.9	47.3	50.7	51.9		46.4	6.2		44.0	37.5		
Lane group LOS	D	D	D	D	D		D	A		D	D		
Apprch. delay	39.0			51.7			9.9			37.5			
Approach LOS	D			D			A			D			
Intersec. delay	31.5			Intersection LOS						C			

SHORT REPORT												
General Information							Site Information					
Analyst	USA/						COLLEGE BLVD.@					
Agency or Co.	USA/						CARLSBAD VILL.					
Date Performed	04/30/12						All other areas					
Time Period	PM PEAK						CARLSBAD-INT.#15					
							Analysis Year BO.ALT.-1/NO PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	1	1	1	1	0	1	2	0	1	2	0
Lane group	L	LT	R	L	TR		L	TR		L	TR	
Volume (vph)	375	10	55	5	5	15	150	1655	5	15	1005	350
% Heavy veh	1	1	1	1	1	1	1	2	1	1	2	1
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	
Ext. eff. green	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	
Arrival type	4	4	4	4	4		5	5		5	5	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	5	5	0	5	5	0	5	5	0	5	5	150
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0		0	0		0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Phasing	EB Only	EW Perm	03	04	Excl. Left	Thru & RT	07	08				
Timing	G = 17.0	G = 10.0	G =	G =	G = 14.0	G = 59.0	G =	G =				
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 5	Y =	Y =				
Duration of Analysis (hrs) = 0.25							Cycle Length C = 120.0					
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	198	208	58	5	21		158	1747		16	1269	
Lane group cap.	410	406	220	147	134		208	1743		208	1695	
v/c ratio	0.48	0.51	0.26	0.03	0.16		0.76	1.00		0.08	0.75	
Green ratio	0.27	0.27	0.14	0.08	0.08		0.12	0.49		0.12	0.49	
Unif. delay d1	36.3	37.4	45.9	50.6	51.1		51.4	30.5		47.2	24.5	
Delay factor k	0.11	0.12	0.11	0.11	0.11		0.31	0.50		0.11	0.30	
Increm. delay d2	0.9	1.1	0.6	0.1	0.5		15.0	22.1		0.2	1.9	
PF factor	1.000	1.000	1.000	1.000	1.000		0.912	0.355		0.912	0.355	
Control delay	37.2	38.5	46.6	50.7	51.6		61.9	32.9		43.2	10.6	
Lane group LOS	D	D	D	D	D		E	C		D	B	
Apprch. delay	39.0			51.4			35.3			11.0		
Approach LOS	D			D			D			B		
Intersec. delay	27.4			Intersection LOS						C		

SHORT REPORT													
General Information							Site Information						
Analyst	USAI						Intersection	COLLEGE BLVD.@					
Agency or Co.	USAI						Area Type	CARLSBAD VILL.					
Date Performed	04/30/12						Jurisdiction	All other areas					
Time Period	PM PEAK						Analysis Year	CARLSBAD-INT.#15					
							BO.ALT.-1/WITH PROJECT						
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	1	1	1	1	1	0	1	2	0	1	2	0	
Lane group	L	LT	R	L	TR		L	TR		L	TR		
Volume (vph)	392	10	55	5	5	15	150	1723	5	15	1030	358	
% Heavy veh	1	1	1	1	1	1	1	2	1	1	2	1	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0		
Ext. eff. green	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0		
Arrival type	4	4	4	4	4		5	5		5	5		
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0		
Ped/Bike/RTOR Volume	5	5	0	5	5	0	5	5	0	5	5	150	
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0	0	0	0		0	0		0	0		
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0		
Phasing	EB Only	EW Perm	03	04	Excl. Left	Thru & RT	07	08					
Timing	G = 17.0	G = 10.0	G =	G =	G = 14.0	G = 59.0	G =	G =					
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 5	Y =	Y =					
Duration of Analysis (hrs) = 0.25							Cycle Length C = 120.0						
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	207	217	58	5	21		158	1819		16	1303		
Lane group cap.	410	406	220	147	134		208	1743		208	1694		
v/c ratio	0.50	0.53	0.26	0.03	0.16		0.76	1.04		0.08	0.77		
Green ratio	0.27	0.27	0.14	0.08	0.08		0.12	0.49		0.12	0.49		
Unif. delay d1	36.5	37.6	45.9	50.6	51.1		51.4	30.5		47.2	24.9		
Delay factor k	0.11	0.14	0.11	0.11	0.11		0.31	0.50		0.11	0.32		
Increm. delay d2	1.0	1.4	0.6	0.1	0.5		15.0	33.9		0.2	2.2		
PF factor	1.000	1.000	1.000	1.000	1.000		0.912	0.355		0.912	0.355		
Control delay	37.6	39.0	46.6	50.7	51.6		61.9	44.8		43.2	11.1		
Lane group LOS	D	D	D	D	D		E	D		D	B		
Apprch. delay	39.3			51.4			46.1			11.5			
Approach LOS	D			D			D			B			
Intersec. delay	33.3			Intersection LOS						C			

SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	COLLEGE BLVD.@					
Agency or Co.	USAI					Area Type	CANNON RD.					
Date Performed	04/30/12					Jurisdiction	All other areas					
Time Period	AM PEAK					Analysis Year	CARLSBAD-INT.#16					
						BO.ALT.-1/NO PROJECT						
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	2	0	2	2	0	2	2	1	2	2	1
Lane group	L	TR		L	TR		L	T	R	L	T	R
Volume (vph)	195	400	50	515	800	45	110	445	550	60	1100	260
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Arrival type	5	5		5	5		5	5	3	5	5	5
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Ped/Bike/RTOR Volume	5		0	5		0	5	5	0	5	5	0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0	0	0	0	0
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Phasing	Excl. Left	WB Only	Thru & RT	04			Excl. Left	Thru & RT	07			08
Timing	G = 11.0	G = 20.0	G = 21.0	G =			G = 17.0	G = 46.0	G =			G =
	Y = 5	Y = 5	Y = 5	Y =			Y = 5	Y = 5	Y =			Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 140.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	205	474		542	889		116	468	579	63	1158	274
Lane group cap.	270	523		884	1156		417	1165	966	417	1165	688
v/c ratio	0.76	0.91		0.61	0.77		0.28	0.40	0.60	0.15	0.99	0.40
Green ratio	0.08	0.15		0.26	0.33		0.12	0.33	0.62	0.12	0.33	0.44
Unif. delay d1	63.2	58.5		45.9	42.2		55.9	36.4	16.0	55.0	46.9	26.4
Delay factor k	0.31	0.43		0.20	0.32		0.11	0.11	0.19	0.11	0.50	0.11
Increm. delay d2	11.8	19.5		1.3	3.2		0.4	0.2	1.0	0.2	24.8	0.4
PF factor	0.943	0.882		0.769	0.674		0.908	0.674	1.000	0.908	0.674	0.470
Control delay	71.4	71.1		36.5	31.7		51.1	24.7	17.0	50.1	56.4	12.8
Lane group LOS	E	E		D	C		D	C	B	D	E	B
Approch. delay	71.2			33.5			23.5			48.2		
Approach LOS	E			C			C			D		
Intersec. delay	41.0			Intersection LOS						D		

SHORT REPORT												
General Information						Site Information						
Analyst USAI						COLLEGE BLVD. @						
Agency or Co. USAI						CANNON RD.						
Date Performed 04/30/12						Area Type All other areas						
Time Period AM PEAK						Jurisdiction CARLSBAD-INT.#16						
						Analysis Year BO.ALT.-1/WITH PROJECT						
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	2	0	2	2	0	2	2	1	2	2	1
Lane group	L	TR		L	TR		L	T	R	L	T	R
Volume (vph)	197	400	50	515	800	46	110	458	550	63	1135	265
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Arrival type	5	5		5	5		5	5	3	5	5	5
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Ped/Bike/RTOR Volume	5		0	5		0	5	5	0	5	5	0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0	0	0	0	0
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Phasing	Excl. Left	WB Only	Thru & RT	04	Excl. Left	Thru & RT	07	08				
Timing	G = 11.0	G = 20.0	G = 21.0	G =	G = 17.0	G = 46.0	G =	G =				
	Y = 5	Y = 5	Y = 5	Y =	Y = 5	Y = 5	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 140.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	207	474		542	890		116	482	579	66	1195	279
Lane group cap.	270	523		884	1156		417	1165	966	417	1165	688
v/c ratio	0.77	0.91		0.61	0.77		0.28	0.41	0.60	0.16	1.03	0.41
Green ratio	0.08	0.15		0.26	0.33		0.12	0.33	0.62	0.12	0.33	0.44
Unif. delay d1	63.2	58.5		45.9	42.2		55.9	36.5	16.0	55.1	47.0	26.5
Delay factor k	0.32	0.43		0.20	0.32		0.11	0.11	0.19	0.11	0.50	0.11
Increm. delay d2	12.5	19.5		1.3	3.2		0.4	0.2	1.0	0.2	33.1	0.4
PF factor	0.943	0.882		0.769	0.674		0.908	0.674	1.000	0.908	0.674	0.470
Control delay	72.1	71.1		36.5	31.7		51.1	24.8	17.0	50.2	64.8	12.8
Lane group LOS	E	E		D	C		D	C	B	D	E	B
Apprch. delay	71.4			33.5			23.6			54.8		
Approach LOS	E			C			C			D		
Intersec. delay	43.2			Intersection LOS						D		

SHORT REPORT												
General Information							Site Information					
Analyst	USAI						COLLEGE BLVD.@					
Agency or Co.	USAI						CANNON RD.					
Date Performed	04/30/12						All other areas					
Time Period	PM PEAK						CARLSBAD-INT.#16					
							Analysis Year BO.ALT.-1/NO PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	2	0	2	2	0	2	2	1	2	2	1
Lane group	L	TR		L	TR		L	T	R	L	T	R
Volume (vph)	260	600	85	450	600	60	50	1440	600	60	705	200
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Arrival type	5	5		5	5		5	5	3	5	5	5
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Ped/Bike/RTOR Volume	5		0	5		0	5	5	0	5	5	0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0	0	0	0	0
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Phasing	Excl. Left	WB Only	Thru & RT	04			Excl. Left	Thru & RT	07			08
Timing	G = 13.0	G = 9.0	G = 27.0	G =			G = 9.0	G = 57.0	G =			G =
	Y = 5	Y = 5	Y = 5	Y =			Y = 5	Y =	Y =			Y =
Duration of Analysis (hrs) = 0.25							Cycle Length C = 140.0					
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	274	721		474	695		53	1516	632	63	742	211
Lane group cap.	319	671		663	1024		221	1444	989	221	1444	834
v/c ratio	0.86	1.07		0.71	0.68		0.24	1.05	0.64	0.29	0.51	0.25
Green ratio	0.09	0.19		0.19	0.29		0.06	0.41	0.64	0.06	0.41	0.54
Unif. delay d1	62.6	56.5		52.9	43.7		62.2	41.5	15.6	62.4	31.1	17.5
Delay factor k	0.39	0.50		0.28	0.25		0.11	0.50	0.22	0.11	0.12	0.11
Increm. delay d2	15.1	51.2		2.6	1.3		0.4	34.4	1.0	0.5	0.2	0.1
PF factor	0.932	0.841		0.841	0.724		0.954	0.542	1.000	0.954	0.542	0.231
Control delay	73.5	98.7		47.1	32.9		59.8	56.9	16.6	60.1	17.1	4.1
Lane group LOS	E	F		D	C		E	E	B	E	B	A
Approch. delay	91.8			38.6			45.4			17.1		
Approach LOS	F			D			D			B		
Intersec. delay	47.2			Intersection LOS						D		

SHORT REPORT												
General Information							Site Information					
Analyst	USAI						COLLEGE BLVD.@					
Agency or Co.	USAI						CANNON RD.					
Date Performed	04/30/12						All other areas					
Time Period	PM PEAK						CARLSBAD-INT.#16					
							Analysis Year BO.AL.T.-1/WITH PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	2	0	2	2	0	2	2	1	2	2	1
Lane group	L	TR		L	TR		L	T	R	L	T	R
Volume (vph)	266	600	85	450	600	64	50	1474	600	62	724	203
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Arrival type	5	5		5	5		5	5	3	5	5	5
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Ped/Bike/RTOR Volume	5		0	5		0	5	5	0	5	5	0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0	0	0	0	0
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Phasing	Excl. Left	WB Only	Thru & RT	04			Excl. Left	Thru & RT	07			08
Timing	G = 13.0	G = 9.0	G = 27.0	G =			G = 9.0	G = 57.0	G =			G =
	Y = 5	Y = 5	Y = 5	Y =			Y = 5	Y = 5	Y =			Y =
Duration of Analysis (hrs) = 0.25							Cycle Length C = 140.0					
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	280	721		474	699		53	1552	632	65	762	214
Lane group cap.	319	671		663	1024		221	1444	989	221	1444	834
v/c ratio	0.88	1.07		0.71	0.68		0.24	1.07	0.64	0.29	0.53	0.26
Green ratio	0.09	0.19		0.19	0.29		0.06	0.41	0.64	0.06	0.41	0.54
Unif. delay d1	62.7	56.5		52.9	43.7		62.2	41.5	15.6	62.5	31.3	17.5
Delay factor k	0.40	0.50		0.28	0.25		0.11	0.50	0.22	0.11	0.13	0.11
Increm. delay d2	17.4	51.2		2.6	1.3		0.4	43.4	1.0	0.5	0.3	0.1
PF factor	0.932	0.841		0.841	0.724		0.954	0.542	1.000	0.954	0.542	0.231
Control delay	75.9	98.7		47.1	33.0		59.8	65.9	16.6	60.1	17.2	4.2
Lane group LOS	E	F		D	C		E	E	B	E	B	A
Apprch. delay	92.3			38.7			51.8			17.2		
Approach LOS	F			D			D			B		
Intersec. delay	49.8			Intersection LOS						D		

SHORT REPORT													
General Information							Site Information						
Analyst	USAI						Intersection						VISTA WAY@SR78WB OFF-ON RAMP
Agency or Co.	USAI						Area Type						All other areas
Date Performed	08/27/12						Jurisdiction						OCEANSIDE-INT.#17
Time Period	AM PEAK						Analysis Year						BO.ALT.-1/NO PROJECT
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	1	2	1	2	2	0	1	1	1	0	2	0	
Lane group	L	T	R	L	TR		L	LT	R		LTR		
Volume (vph)	90	605	305	275	325	50	515	50	180	45	70	35	
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0		
Ext. eff. green	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0		2.0		
Arrival type	5	5	5	5	5		3	3	3		3		
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0		
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5	10	0	
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0		12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0	0	0	0		0	0	0		0		
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0		
Phasing	Excl. Left	Thru & RT	03		04		SB Only		NB Only		07		08
Timing	G = 11.0	G = 27.0	G =		G =		G = 9.0		G = 37.0		G =		G =
	Y = 4	Y = 4	Y =		Y =		Y = 4		Y = 4		Y =		Y =
Duration of Analysis (hrs) = 0.25							Cycle Length C = 100.0						
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	95	637	321	289	395		298	297	189		158		
Lane group cap.	177	922	401	344	898		634	642	557		265		
v/c ratio	0.54	0.69	0.80	0.84	0.44		0.47	0.46	0.34		0.60		
Green ratio	0.10	0.26	0.26	0.10	0.26		0.36	0.36	0.36		0.08		
Unif. delay d1	42.8	33.4	34.6	44.2	30.9		24.7	24.6	23.3		44.4		
Delay factor k	0.14	0.26	0.34	0.38	0.11		0.11	0.11	0.11		0.19		
Increm. delay d2	3.2	2.2	11.0	16.7	0.3		0.6	0.5	0.4		3.6		
PF factor	0.926	0.766	0.766	0.926	0.766		1.000	1.000	1.000		1.000		
Control delay	42.8	27.8	37.5	57.7	24.0		25.2	25.1	23.7		48.1		
Lane group LOS	D	C	D	E	C		C	C	C		D		
Apprch. delay	32.1			38.2			24.8			48.1			
Approach LOS	C			D			C			D			
Intersec. delay	32.5			Intersection LOS						C			

SHORT REPORT													
General Information							Site Information						
Analyst	USAI						Intersection						VISTA WAY@SR78WB OFF-ON RAMP
Agency or Co.	USAI						Area Type						All other areas
Date Performed	08/27/12						Jurisdiction						OCEANSIDE-INT.#17
Time Period	AM PEAK						Analysis Year						BO.ALT.-1/WITH PROJECT
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	1	2	1	2	2	0	1	1	1	0	2	0	
Lane group	L	T	R	L	TR		L	LT	R		LTR		
Volume (vph)	97	617	305	275	329	50	529	50	180	45	70	37	
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0		
Ext. eff. green	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0		2.0		
Arrival type	5	5	5	5	5		3	3	3		3		
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0		
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5	10	0	
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0		12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0	0	0	0		0	0	0		0		
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0		
Phasing	Excl. Left	Thru & RT	03		04		SB Only		NB Only		07		08
Timing	G = 11.0	G = 27.0	G =		G =		G = 9.0		G = 37.0		G =		G =
	Y = 4	Y = 4	Y =		Y =		Y = 4		Y = 4		Y =		Y =
Duration of Analysis (hrs) = 0.25							Cycle Length C = 100.0						
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	102	649	321	289	399		306	304	189		160		
Lane group cap.	177	922	401	344	899		634	641	557		265		
v/c ratio	0.58	0.70	0.80	0.84	0.44		0.48	0.47	0.34		0.60		
Green ratio	0.10	0.26	0.26	0.10	0.26		0.36	0.36	0.36		0.08		
Unif. delay d1	43.0	33.5	34.6	44.2	31.0		24.8	24.7	23.3		44.5		
Delay factor k	0.17	0.27	0.34	0.38	0.11		0.11	0.11	0.11		0.19		
Increm. delay d2	4.6	2.5	11.0	16.7	0.4		0.6	0.6	0.4		3.9		
PF factor	0.926	0.766	0.766	0.926	0.766		1.000	1.000	1.000		1.000		
Control delay	44.4	28.1	37.5	57.7	24.1		25.4	25.3	23.7		48.3		
Lane group LOS	D	C	D	E	C		C	C	C		D		
Apprch. delay	32.5			38.2			24.9			48.3			
Approach LOS	C			D			C			D			
Intersec. delay	32.6			Intersection LOS						C			

SHORT REPORT													
General Information							Site Information						
Analyst	USAI						Intersection						VISTA WAY@SR78WB OFF-ON RAMP
Agency or Co.	USAI						Area Type						All other areas
Date Performed	08/27/12						Jurisdiction						OCEANSIDE-INT.#17
Time Period	PM PEAK						Analysis Year						BO.ALT.-1/NO PROJECT
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	1	2	1	2	2	0	1	1	1	0	2	0	
Lane group	L	T	R	L	TR		L	LT	R		LTR		
Volume (vph)	85	520	310	350	425	45	665	35	120	65	55	55	
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0		
Ext. eff. green	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0		2.0		
Arrival type	5	5	5	5	5		3	3	3		3		
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0		
Ped/Bike/RTOR Volume	5		0	5	10	0	5	10	0	5	10	0	
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0		12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0	0	0	0		0	0	0		0		
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0		
Phasing	Excl. Left	WB Only	Thru & RT	04			SB Only	NB Only	07			08	
Timing	G = 10.0	G = 10.0	G = 20.0	G =			G = 7.0	G = 43.0	G =			G =	
	Y = 4	Y = 4	Y = 4	Y =			Y = 4	Y = 4	Y =			Y =	
Duration of Analysis (hrs) = 0.25						Cycle Length C = 110.0							
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	89	547	326	368	494		385	352	126		184		
Lane group cap.	145	613	878	719	1043		672	678	592		176		
v/c ratio	0.61	0.89	0.37	0.51	0.47		0.57	0.52	0.21		1.05		
Green ratio	0.08	0.17	0.55	0.21	0.30		0.38	0.38	0.38		0.05		
Unif. delay d1	48.8	44.5	13.7	38.5	31.4		26.9	26.2	22.9		52.0		
Delay factor k	0.20	0.42	0.11	0.12	0.11		0.17	0.12	0.11		0.50		
Increm. delay d2	7.5	15.4	0.3	0.6	0.3		1.2	0.7	0.2		80.3		
PF factor	0.941	0.861	0.170	0.824	0.714		1.000	1.000	1.000		1.000		
Control delay	53.4	53.7	2.6	32.4	22.8		28.1	26.9	23.1		132.3		
Lane group LOS	D	D	A	C	C		C	C	C		F		
Apprch. delay	36.3			26.9			26.9			132.3			
Approach LOS	D			C			C			F			
Intersec. delay	36.8			Intersection LOS						D			

SHORT REPORT													
General Information							Site Information						
Analyst	USAI						Intersection						VISTA WAY@SR78WB OFF-ON RAMP
Agency or Co.	USAI						Area Type						All other areas
Date Performed	08/27/12						Jurisdiction						OCEANSIDE-INT.#17
Time Period	PM PEAK						Analysis Year						BO.ALT.-1/WITH PROJECT
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	1	2	1	2	2	0	1	1	1	0	2	0	
Lane group	L	T	R	L	TR		L	LT	R		LTR		
Volume (vph)	89	526	310	350	438	45	709	35	120	65	55	63	
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0		
Ext. eff. green	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0		2.0		
Arrival type	5	5	5	5	5		3	3	3		3		
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0		
Ped/Bike/RTOR Volume	5		0	5	10	0	5	10	0	5	10	0	
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0		12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0	0	0	0		0	0	0		0		
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0		
Phasing	Excl. Left	WB Only	Thru & RT	04		SB Only	NB Only	07		08			
Timing	G = 10.0	G = 10.0	G = 20.0	G =		G = 7.0	G = 43.0	G =		G =			
	Y = 4	Y = 4	Y = 4	Y =		Y = 4	Y = 4	Y =		Y =			
Duration of Analysis (hrs) = 0.25						Cycle Length C = 110.0							
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	94	554	326	368	508		410	373	126		192		
Lane group cap.	145	613	878	719	1043		672	678	592		175		
v/c ratio	0.65	0.90	0.37	0.51	0.49		0.61	0.55	0.21		1.10		
Green ratio	0.08	0.17	0.55	0.21	0.30		0.38	0.38	0.38		0.05		
Unif. delay d1	49.0	44.6	13.7	38.5	31.6		27.4	26.6	22.9		52.0		
Delay factor k	0.23	0.42	0.11	0.12	0.11		0.20	0.15	0.11		0.50		
Increm. delay d2	9.7	16.9	0.3	0.6	0.4		1.6	1.0	0.2		96.4		
PF factor	0.941	0.861	0.170	0.824	0.714		1.000	1.000	1.000		1.000		
Control delay	55.8	55.3	2.6	32.4	22.9		29.0	27.6	23.1		148.4		
Lane group LOS	E	E	A	C	C		C	C	C		F		
Apprch. delay	37.7			26.9			27.6			148.4			
Approach LOS	D			C			C			F			
Intersec. delay	38.6			Intersection LOS						D			

SHORT REPORT													
General Information						Site Information							
Analyst	USAI					Intersection	PLAZA BLVD.@SR-78EB						
Agency or Co.	USAI					Area Type	OFF-ON RAM						
Date Performed	08/27/12					Jurisdiction	All other areas						
Time Period	AM PEAK					Analysis Year	OCEANSIDE-INT.#18						
						BO.ALT.-1/NO PROJECT							
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	2	2	0	1	2	0	1	1	1	1	1	0	
Lane group	L	TR		L	TR		L	LT	R	L	TR		
Volume (vph)	775	220	25	30	345	45	20	5	10	85	10	45	
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0		
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0		
Arrival type	5	5		5	5		3	3	3	3	3		
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0		
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5	10	0	
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0		0	0		0	0	0	0	0		
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0		
Phasing	Excl. Left	EB Only	Thru & RT	04		SB Only	NB Only	07		08			
Timing	G = 6.0	G = 42.0	G = 19.0	G =		G = 9.0	G = 4.0	G =		G =			
	Y = 4	Y = 4	Y = 4	Y =		Y = 4	Y = 4	Y =		Y =			
Duration of Analysis (hrs) = 0.25						Cycle Length C = 100.0							
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	816	258		32	410		12	14	11	89	58		
Lane group cap.	1750	2228		89	625		50	52	42	142	128		
v/c ratio	0.47	0.12		0.36	0.66		0.24	0.27	0.26	0.63	0.45		
Green ratio	0.51	0.64		0.05	0.18		0.03	0.03	0.03	0.08	0.08		
Unif. delay d1	15.8	7.0		46.0	38.1		47.4	47.4	47.4	44.6	43.9		
Delay factor k	0.11	0.11		0.11	0.23		0.11	0.11	0.11	0.21	0.11		
Increm. delay d2	0.2	0.0		2.0	2.0		2.5	2.8	3.3	6.8	2.0		
PF factor	0.306	0.139		0.965	0.854		1.000	1.000	1.000	1.000	1.000		
Control delay	5.0	1.0		46.3	34.6		49.9	50.2	50.7	51.4	45.9		
Lane group LOS	A	A		D	C		D	D	D	D	D		
Apprch. delay	4.1			35.4			50.3			49.2			
Approach LOS	A			D			D			D			
Intersec. delay	17.1			Intersection LOS						B			

SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	PLAZA BLVD.@SR-78EB					
Agency or Co.	USAI					Area Type	OFF-ON RAM					
Date Performed	08/27/12					Jurisdiction	All other areas					
Time Period	AM PEAK					Analysis Year	OCEANSIDE-INT.#18					
						BO.ALT.-1/WITH PROJECT						
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	2	0	1	2	0	1	1	1	1	1	0
Lane group	L	TR		L	TR		L	LT	R	L	TR	
Volume (vph)	814	232	35	30	349	45	24	5	10	85	10	45
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Arrival type	5	5		5	5		3	3	3	3	3	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5	10	0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0	0	0	0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Phasing	Excl. Left	EB Only	Thru & RT	04		SB Only	NB Only		07		08	
Timing	G = 5.0	G = 43.0	G = 19.0	G =		G = 9.0	G = 4.0		G =		G =	
	Y = 4	Y = 4	Y = 4	Y =		Y = 4	Y = 4		Y =		Y =	
Duration of Analysis (hrs) = 0.25						Cycle Length C = 100.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	857	281		32	414		25	5	11	89	58	
Lane group cap.	1753	2251		71	625		50	56	42	139	125	
v/c ratio	0.49	0.12		0.45	0.66		0.50	0.09	0.26	0.64	0.46	
Green ratio	0.51	0.65		0.04	0.18		0.03	0.03	0.03	0.08	0.08	
Unif. delay d1	16.0	6.7		46.9	38.2		47.8	47.2	47.4	44.6	44.0	
Delay factor k	0.11	0.11		0.11	0.24		0.11	0.11	0.11	0.22	0.11	
Increm. delay d2	0.2	0.0		4.5	2.6		7.7	0.7	3.3	9.6	2.7	
PF factor	0.306	0.143		0.972	0.854		1.000	1.000	1.000	1.000	1.000	
Control delay	5.1	1.0		50.1	35.2		55.4	47.9	50.7	54.2	46.7	
Lane group LOS	A	A		D	D		E	D	D	D	D	
Apprch. delay	4.1			36.3			53.2			51.2		
Approach LOS	A			D			D			D		
Intersec. delay	17.2			Intersection LOS						B		

SHORT REPORT												
General Information						Site Information						
Analyst Agency or Co. Date Performed Time Period						Intersection Area Type Jurisdiction Analysis Year						
USA/ USA/ 08/27/12 PM PEAK						PLAZA BLVD. @SR-78EB OFF-ON RAM All other areas OCEANSIDE-INT.#18 BO.ALT.-1/NO PROJECT						
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	2	0	1	2	0	1	1	1	1	1	0
Lane group	L	TR		L	TR		L	LT	R	L	TR	
Volume (vph)	740	345	80	115	485	135	165	50	15	176	65	40
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Arrival type	5	5		5	5		3	3	3	3	3	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5	10	0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0	0	0	0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Phasing	Excl. Left	EB Only	Thru & RT	04		SB Only	NB Only		07		08	
Timing	G = 14.0	G = 26.0	G = 23.0	G =		G = 15.0	G = 12.0		G =		G =	
	Y = 4	Y = 4	Y = 4	Y =		Y = 4	Y = 4		Y =		Y =	
Duration of Analysis (hrs) = 0.25						Cycle Length C = 110.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	779	447		121	653		96	131	16	185	110	
Lane group cap.	1344	1620		209	682		174	179	151	223	220	
v/c ratio	0.58	0.28		0.58	0.96		0.55	0.73	0.11	0.83	0.50	
Green ratio	0.39	0.47		0.12	0.20		0.10	0.10	0.10	0.13	0.13	
Unif. delay d1	26.4	17.6		45.9	43.5		47.2	48.1	45.0	46.8	44.7	
Delay factor k	0.17	0.11		0.17	0.47		0.15	0.29	0.11	0.37	0.11	
Increm. delay d2	0.6	0.1		4.0	24.4		3.8	14.3	0.3	22.3	1.8	
PF factor	0.572	0.402		0.911	0.833		1.000	1.000	1.000	1.000	1.000	
Control delay	15.7	7.2		45.8	60.7		50.9	62.3	45.3	69.2	46.5	
Lane group LOS	B	A		D	E		D	E	D	E	D	
Apprch. delay	12.6			58.3			56.7			60.7		
Approach LOS	B			E			E			E		
Intersec. delay	36.4			Intersection LOS						D		

SHORT REPORT												
General Information							Site Information					
Analyst	USA/						PLAZA BLVD.@SR-78EB					
Agency or Co.	USA/						OFF-ON RAM					
Date Performed	08/27/12						All other areas					
Time Period	PM PEAK						OCEANSIDE-INT.#18					
							Analysis Year BO.ALT.-1/WITH PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	2	0	1	2	0	1	1	1	1	1	0
Lane group	L	TR		L	TR		L	LT	R	L	TR	
Volume (vph)	761	351	85	115	498	135	165	50	15	176	65	40
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Arrival type	5	5		5	5		3	3	3	3	3	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5	10	0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0	0	0	0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Phasing	Excl. Left	EB Only	Thru & RT	04			SB Only	NB Only	07			08
Timing	G = 14.0	G = 26.0	G = 23.0	G =			G = 15.0	G = 12.0	G =			G =
	Y = 4	Y = 4	Y = 4	Y =			Y = 4	Y = 4	Y =			Y =
Duration of Analysis (hrs) = 0.25							Cycle Length C = 110.0					
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	801	458		121	666		96	131	16	185	110	
Lane group cap.	1344	1617		209	682		174	179	151	223	220	
v/c ratio	0.60	0.28		0.58	0.98		0.55	0.73	0.11	0.83	0.50	
Green ratio	0.39	0.47		0.12	0.20		0.10	0.10	0.10	0.13	0.13	
Unif. delay d1	26.6	17.7		45.9	43.7		47.2	48.1	45.0	46.8	44.7	
Delay factor k	0.18	0.11		0.17	0.48		0.15	0.29	0.11	0.37	0.11	
Increm. delay d2	0.7	0.1		4.0	28.6		3.8	14.3	0.3	22.3	1.8	
PF factor	0.572	0.402		0.911	0.833		1.000	1.000	1.000	1.000	1.000	
Control delay	15.9	7.2		45.8	65.0		50.9	62.3	45.3	69.2	46.5	
Lane group LOS	B	A		D	E		D	E	D	E	D	
Apprch. delay	12.8			62.1			56.7			60.7		
Approach LOS	B			E			E			E		
Intersec. delay	37.4			Intersection LOS						D		

SHORT REPORT												
General Information							Site Information					
Analyst	USAI						Intersection LAKE BLVD.@THUNDER DR.					
Agency or Co.	USAI						Area Type All other areas					
Date Performed	08/27/12						Jurisdiction OCEANSIDE-INT.#19					
Time Period	AM PEAK						Analysis Year BO.ALT.-1/NO PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	2	0	1	2	0	1	1	0	1	1	0
Lane group	L	TR		L	TR		L	TR		L	TR	
Volume (vph)	150	270	10	5	580	90	5	5	5	60	5	200
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	3.0	3.0		3.0	3.0		2.0	3.0		3.0	3.0	
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Arrival type	3	3		3	3		3	3		3	3	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5		0	5		0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0		0	0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08				
Timing	G = 13.0	G = 42.0	G =	G =	G = 8.0	G = 19.1	G =	G =				
	Y = 4.2	Y = 5.3	Y =	Y =	Y = 4.2	Y = 4.2	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 100.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	163	304		5	728		5	10		65	222	
Lane group cap.	212	1444		212	1418		142	312		124	288	
v/c ratio	0.77	0.21		0.02	0.51		0.04	0.03		0.52	0.77	
Green ratio	0.12	0.41		0.12	0.41		0.08	0.18		0.07	0.18	
Unif. delay d1	42.7	19.0		38.8	22.0		42.4	33.7		44.9	39.0	
Delay factor k	0.32	0.11		0.11	0.12		0.11	0.11		0.13	0.32	
Increm. delay d2	15.7	0.1		0.0	0.3		0.1	0.0		4.0	12.1	
PF factor	1.000	1.000		1.000	1.000		1.000	1.000		1.000	1.000	
Control delay	58.3	19.1		38.9	22.4		42.5	33.8		48.9	51.1	
Lane group LOS	E	B		D	C		D	C		D	D	
Approch. delay	32.8			22.5			36.7			50.6		
Approach LOS	C			C			D			D		
Intersec. delay	31.2			Intersection LOS						C		

SHORT REPORT													
General Information							Site Information						
Analyst	USAI						Intersection						LAKE BLVD.@THUNDER
Agency or Co.	USAI						Area Type						All other areas
Date Performed	08/27/12						Jurisdiction						OCEANSIDE-INT.#19
Time Period	AM PEAK						Analysis Year						BO.ALT.-1/WITH PROJECT
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	1	2	0	1	2	0	1	1	0	1	1	0	
Lane group	L	TR		L	TR		L	TR		L	TR		
Volume (vph)	152	282	10	5	584	90	5	5	5	60	5	201	
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2	
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	3.0	3.0		3.0	3.0		2.0	3.0		3.0	3.0		
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0		
Arrival type	3	3		3	3		3	3		3	3		
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0		
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5		0	5		0	
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0		0	0		0	0		0	0		
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0		
Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08					
Timing	G = 13.0	G = 42.0	G =	G =	G = 8.0	G = 19.1	G =	G =					
	Y = 4.2	Y = 5.3	Y =	Y =	Y = 4.2	Y = 4.2	Y =	Y =					
Duration of Analysis (hrs) = 0.25							Cycle Length C = 100.0						
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	165	318		5	733		5	10		65	223		
Lane group cap.	212	1445		212	1419		142	312		124	288		
v/c ratio	0.78	0.22		0.02	0.52		0.04	0.03		0.52	0.77		
Green ratio	0.12	0.41		0.12	0.41		0.08	0.18		0.07	0.18		
Unif. delay d1	42.7	19.1		38.8	22.1		42.4	33.7		44.9	39.0		
Delay factor k	0.33	0.11		0.11	0.12		0.11	0.11		0.13	0.32		
Increm. delay d2	16.7	0.1		0.0	0.3		0.1	0.0		4.0	12.4		
PF factor	1.000	1.000		1.000	1.000		1.000	1.000		1.000	1.000		
Control delay	59.4	19.2		38.9	22.4		42.5	33.8		48.9	51.4		
Lane group LOS	E	B		D	C		D	C		D	D		
Approch. delay	32.9			22.5			36.7			50.8			
Approach LOS	C			C			D			D			
Intersec. delay	31.3			Intersection LOS						C			

SHORT REPORT												
General Information						Site Information						
Analyst USAI						Intersection LAKE BLVD.@THUNDER DR.						
Agency or Co. USAI						Area Type All other areas						
Date Performed 08/27/12						Jurisdiction OCEANSIDE-INT.#19						
Time Period PM PEAK						Analysis Year BO.ALT.-1/NO PROJECT						
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	2	0	1	2	0	1	1	0	1	1	0
Lane group	L	TR		L	TR		L	TR		L	TR	
Volume (vph)	275	820	15	10	500	110	5	5	5	135	5	135
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Arrival type	3	3		3	3		3	3		3	3	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5		0	5		0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0		0	0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Phasing	Excl. Left	EW Perm	Thru & RT	04			Excl. Left	Thru & RT	07			08
Timing	G = 4.0	G = 15.0	G = 40.0	G =			G = 13.0	G = 14.8	G =			G =
	Y = 4.2	Y = 5.3	Y = 5.3	Y =			Y = 4.2	Y = 4.2	Y =			Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 110.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	299	907		11	663		5	10		147	152	
Lane group cap.	357	1906		116	1215		193	216		193	200	
v/c ratio	0.84	0.48		0.09	0.55		0.03	0.05		0.76	0.76	
Green ratio	0.20	0.54		0.20	0.35		0.11	0.13		0.11	0.13	
Unif. delay d1	42.2	15.7		37.0	28.4		43.8	42.3		47.6	46.5	
Delay factor k	0.37	0.11		0.11	0.15		0.11	0.11		0.31	0.31	
Increm. delay d2	15.9	0.2		0.4	0.5		0.1	0.1		16.3	15.6	
PF factor	1.000	1.000		1.000	1.000		1.000	1.000		1.000	1.000	
Control delay	58.1	15.9		37.3	28.9		43.8	42.4		63.9	62.1	
Lane group LOS	E	B		D	C		D	D		E	E	
Apprch. delay	26.4			29.1			42.9			63.0		
Approach LOS	C			C			D			E		
Intersec. delay	32.3			Intersection LOS						C		

SHORT REPORT												
General Information							Site Information					
Analyst	USAI						Intersection LAKE BLVD.@THUNDER DR.					
Agency or Co.	USAI						Area Type All other areas					
Date Performed	08/27/12						Jurisdiction OCEANSIDE-INT.#19					
Time Period	PM PEAK						Analysis Year BO.ALT.-1/WITH PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	2	0	1	2	0	1	1	0	1	1	0
Lane group	L	TR		L	TR		L	TR		L	TR	
Volume (vph)	276	826	15	10	513	110	5	5	5	135	5	137
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Arrival type	3	3		3	3		3	3		3	3	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5		0	5		0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0		0	0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Phasing	Excl. Left	EW Perm	Thru & RT	04	Excl. Left	Thru & RT	07	08				
Timing	G = 4.0	G = 15.0	G = 40.0	G =	G = 13.0	G = 14.8	G =	G =				
	Y = 4.2	Y = 5.3	Y = 5.3	Y =	Y = 4.2	Y = 4.2	Y =	Y =				
Duration of Analysis (hrs) = 0.25							Cycle Length C = 110.0					
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	300	914		11	678		5	10		147	154	
Lane group cap.	357	1906		116	1216		193	216		193	200	
v/c ratio	0.84	0.48		0.09	0.56		0.03	0.05		0.76	0.77	
Green ratio	0.20	0.54		0.20	0.35		0.11	0.13		0.11	0.13	
Unif. delay d1	42.2	15.8		36.8	28.6		43.8	42.3		47.6	46.6	
Delay factor k	0.38	0.11		0.11	0.15		0.11	0.11		0.31	0.32	
Increm. delay d2	16.3	0.2		0.4	0.6		0.1	0.1		16.3	16.6	
PF factor	1.000	1.000		1.000	1.000		1.000	1.000		1.000	1.000	
Control delay	58.4	15.9		37.2	29.1		43.8	42.4		63.9	63.2	
Lane group LOS	E	B		D	C		D	D		E	E	
Apprch. delay	26.5			29.3			42.9			63.5		
Approach LOS	C			C			D			E		
Intersec. delay	32.5			Intersection LOS						C		

SHORT REPORT												
General Information							Site Information					
Analyst	USAI						COLLEGE BLVD.@					
Agency or Co.	USAI						WARING RD.					
Date Performed	08/24/12						Area Type					
Time Period	AM PEAK						All other areas					
							Jurisdiction					
							OCEANSIDE-INT#20					
							Analysis Year					
							BUILDOUT ALT.#1-AM/NO					
							PROJEC					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	1	1	1	1	0	2	2	1	1	2	1
Lane group		LT	R	L	TR		L	T	R	L	T	R
Volume (vph)	30	35	180	110	50	45	440	630	200	75	1200	140
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time		2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Ext. eff. green		2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Arrival type		4	4	4	4		5	5	5	5	5	5
Unit Extension		3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Ped/Bike/RTOR Volume	5	5	0	5	5	0	5	5	0	5	5	0
Lane Width		12.0	12.0	12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr		0	0	0	0		0	0	0	0	0	0
Unit Extension		3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Phasing	EB Only	WB Only	03		04		Excl. Left		Thru & RT		07	
Timing	G = 14.0	G = 7.0	G =		G =		G = 15.1		G = 44.0		G =	
	Y = 4.6	Y = 4	Y =		Y =		Y = 4.6		Y = 6.7		Y =	
Duration of Analysis (hrs) = 0.25									Cycle Length C = 100.0			
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate		71	196	120	103		478	685	217	82	1304	152
Lane group cap.		254	449	121	118		519	1561	676	267	1561	684
v/c ratio		0.28	0.44	0.99	0.87		0.92	0.44	0.32	0.31	0.84	0.22
Green ratio		0.14	0.29	0.07	0.07		0.15	0.44	0.44	0.15	0.44	0.44
Unif. delay d1		38.5	28.8	46.5	46.1		41.9	19.4	18.3	37.8	24.8	17.4
Delay factor k		0.11	0.11	0.49	0.40		0.44	0.11	0.11	0.11	0.37	0.11
Increm. delay d2		0.6	0.7	79.1	46.4		21.9	0.2	0.3	0.7	4.1	0.2
PF factor		1.000	0.993	1.000	1.000		0.881	0.476	0.476	0.881	0.476	0.476
Control delay		39.1	29.3	125.6	92.4		58.8	9.5	9.0	34.0	15.9	8.4
Lane group LOS		D	C	F	F		E	A	A	C	B	A
Apprch. delay	31.9			110.3			26.5			16.1		
Approach LOS	C			F			C			B		
Intersec. delay	27.7			Intersection LOS						C		

SHORT REPORT												
General Information							Site Information					
Analyst	USAI						COLLEGE BLVD.@					
Agency or Co.	USAI						WARING RD.					
Date Performed	08/24/12						Area Type					
Time Period	AM PEAK						All other areas					
							Jurisdiction					
							OCEANSIDE-INT#20					
							Analysis Year					
							BUILDOUT ALT.#1-AM/WITH PROJEC					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	1	1	1	1	0	2	2	1	1	2	1
Lane group		LT	R	L	TR		L	T	R	L	T	R
Volume (vph)	30	35	184	110	50	45	450	649	200	75	1207	140
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time		2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Ext. eff. green		2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Arrival type		4	4	4	4		5	5	5	5	5	5
Unit Extension		3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Ped/Bike/RTOR Volume	5	5	0	5	5	0	5	5	0	5	5	0
Lane Width		12.0	12.0	12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr		0	0	0	0		0	0	0	0	0	0
Unit Extension		3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Phasing	EB Only	WB Only	03		04		Excl. Left		Thru & RT		07	
Timing	G = 14.0	G = 7.0	G =		G =		G = 15.1		G = 44.0		G =	
	Y = 4.6	Y = 4	Y =		Y =		Y = 4.6		Y = 6.7		Y =	
Duration of Analysis (hrs) = 0.25									Cycle Length C = 100.0			
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate		71	200	120	103		489	705	217	82	1312	152
Lane group cap.		254	449	121	118		519	1561	676	267	1561	684
v/c ratio		0.28	0.45	0.99	0.87		0.94	0.45	0.32	0.31	0.84	0.22
Green ratio		0.14	0.29	0.07	0.07		0.15	0.44	0.44	0.15	0.44	0.44
Unif. delay d1		38.5	28.9	46.5	46.1		42.0	19.6	18.3	37.8	24.9	17.4
Delay factor k		0.11	0.11	0.49	0.40		0.45	0.11	0.11	0.11	0.38	0.11
Increm. delay d2		0.6	0.7	79.1	46.4		25.8	0.2	0.3	0.7	4.3	0.2
PF factor		1.000	0.993	1.000	1.000		0.881	0.476	0.476	0.881	0.476	0.476
Control delay		39.1	29.4	125.6	92.4		62.9	9.5	9.0	34.0	16.2	8.4
Lane group LOS		D	C	F	F		E	A	A	C	B	A
Apprch. delay	31.9			110.3			27.9			16.3		
Approach LOS	C			F			C			B		
Intersec. delay	28.4			Intersection LOS						C		

SHORT REPORT												
General Information							Site Information					
Analyst	USAI						COLLEGE BLVD.@					
Agency or Co.	USAI						WARING RD.					
Date Performed	08/23/12						Area Type					
Time Period	PM PEAK						All other areas					
							Jurisdiction					
							OCEANSIDE-INT#20PM					
							Analysis Year					
							BUILDOUT ALT.#1-PM/NO					
							PROJEC					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	1	1	1	1	0	2	2	1	1	2	1
Lane group		LT	R	L	TR		L	T	R	L	T	R
Volume (vph)	105	55	390	130	55	120	380	1415	165	70	795	80
% Heavy veh	1	1	1	1	1	1	1	2	1	1	2	1
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time		2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Ext. eff. green		2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Arrival type		4	4	4	4		5	5	5	5	5	5
Unit Extension		3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Ped/Bike/RTOR Volume	5	5	0	5	5	0	5	5	0	5	5	0
Lane Width		12.0	12.0	12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr		0	0	0	0		0	0	0	0	0	0
Unit Extension		3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Phasing	EB Only	WB Only	03		04		Excl. Left	NB Only		Thru & RT		08
Timing	G = 12.0	G = 10.0	G =		G =		G = 10.0	G = 11.1		G = 42.0		G =
	Y = 4.6	Y = 4	Y =		Y =		Y = 4.6	Y = 5		Y = 6.7		Y =
Duration of Analysis (hrs) = 0.25									Cycle Length C = 110.0			
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate		174	424	141	190		413	1538	179	76	864	87
Lane group cap.		197	532	160	149		811	1873	821	162	1354	599
v/c ratio		0.88	0.80	0.88	1.28		0.51	0.82	0.22	0.47	0.64	0.15
Green ratio		0.11	0.34	0.09	0.09		0.23	0.53	0.53	0.09	0.38	0.38
Unif. delay d1		48.3	32.7	49.4	50.0		36.7	21.6	13.8	47.5	27.8	22.3
Delay factor k		0.41	0.34	0.41	0.50		0.12	0.36	0.11	0.11	0.22	0.11
Increm. delay d2		34.2	8.3	39.2	165.7		0.5	3.1	0.1	2.1	1.0	0.1
PF factor		1.000	0.950	1.000	1.000		0.797	0.254	0.254	0.933	0.588	0.588
Control delay		82.5	39.4	88.6	215.7		29.8	8.5	3.6	46.5	17.4	13.2
Lane group LOS		F	D	F	F		C	A	A	D	B	B
Approch. delay	51.9			161.6			12.2			19.2		
Approach LOS	D			F			B			B		
Intersec. delay	31.9			Intersection LOS						C		

SHORT REPORT												
General Information							Site Information					
Analyst	USAI						COLLEGE BLVD.@					
Agency or Co.	USAI						WARING RD.					
Date Performed	08/23/12						All other areas					
Time Period	PM PEAK						OCEANSIDE-INT#20PM					
							BUILDOUT ALT.#1-					
							PM/WITH PROJEC					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	1	1	1	1	0	2	2	1	1	2	1
Lane group		LT	R	L	TR		L	T	R	L	T	R
Volume (vph)	105	55	401	130	55	120	386	1425	165	70	816	80
% Heavy veh	1	1	1	1	1	1	1	2	1	1	2	1
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time		2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Ext. eff. green		2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Arrival type		4	4	4	4		5	5	5	5	5	5
Unit Extension		3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Ped/Bike/RTOR Volume	5	5	0	5	5	0	5	5	0	5	5	0
Lane Width		12.0	12.0	12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr		0	0	0	0		0	0	0	0	0	0
Unit Extension		3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Phasing	EB Only	WB Only	03		04		Excl. Left		NB Only		Thru & RT	
Timing	G = 12.0	G = 10.0	G =		G =		G = 10.0		G = 11.1		G = 42.0	
	Y = 4.6	Y = 4	Y =		Y =		Y = 4.6		Y = 5		Y = 6.7	
Duration of Analysis (hrs) = 0.25							Cycle Length C = 110.0					
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate		174	436	141	190		420	1549	179	76	887	87
Lane group cap.		197	532	160	149		811	1873	821	162	1354	599
v/c ratio		0.88	0.82	0.88	1.28		0.52	0.83	0.22	0.47	0.66	0.15
Green ratio		0.11	0.34	0.09	0.09		0.23	0.53	0.53	0.09	0.38	0.38
Unif. delay d1		48.3	33.0	49.4	50.0		36.7	21.7	13.8	47.5	28.0	22.3
Delay factor k		0.41	0.36	0.41	0.50		0.12	0.37	0.11	0.11	0.23	0.11
Increm. delay d2		34.2	9.8	39.2	165.7		0.6	3.2	0.1	2.1	1.2	0.1
PF factor		1.000	0.950	1.000	1.000		0.797	0.254	0.254	0.933	0.588	0.588
Control delay		82.5	41.2	88.6	215.7		29.9	8.7	3.6	46.5	17.6	13.2
Lane group LOS		F	D	F	F		C	A	A	D	B	B
Apprch. delay		53.0			161.6		12.4			19.4		
Approach LOS		D			F		B			B		
Intersec. delay		32.1			Intersection LOS						C	

MIT. 2 CONVERT NB RT0 LANE TO THIRD NB

THROUGH
RIGHT**SHORT REPORT**

General Information		Site Information	
Analyst	USAI	Intersection	COLLEGE BLVD.@ WARING RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	08/24/12	Jurisdiction	OCEANSIDE-INT#20/WITH MIT.
Time Period	AM PEAK	Analysis Year	BUILDOUT ALT.#1-AM/NO PROJEC

Volume and Timing Input														
			EB			WB			NB			SB		
			LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes			0	1	1	1	1	0	2	3	0	1	2	1
Lane group				LT	R	L	TR		L	TR		L	T	R
Volume (vph)			30	35	180	110	50	45	440	630	200	75	1200	140
% Heavy veh			2	2	2	2	2	2	2	2	2	2	2	2
PHF			0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Actuated (P/A)			A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time				2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	2.0
Ext. eff. green				2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	2.0
Arrival type				4	4	4	4		5	5		5	5	5
Unit Extension				3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Ped/Bike/RTOR Volume			5	5	0	5	5	0	5	5	0	5	5	0
Lane Width				12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0	12.0
Parking/Grade/Parking			N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr														
Bus stops/hr				0	0	0	0		0	0		0	0	0
Unit Extension				3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Phasing	EB Only	WB Only	03		04		Excl. Left		Thru & RT		07		08	
Timing	G = 14.0	G = 7.0	G =		G =		G = 15.1		G = 44.0		G =		G =	
	Y = 4.6	Y = 4	Y =		Y =		Y = 4.6		Y = 6.7		Y =		Y =	
Duration of Analysis (hrs) = 0.25									Cycle Length C = 100.0					

Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate		71	196	120	103		478	902		82	1304	152
Lane group cap.		254	449	121	118		519	2137		267	1561	684
v/c ratio		0.28	0.44	0.99	0.87		0.92	0.42		0.31	0.84	0.22
Green ratio		0.14	0.29	0.07	0.07		0.15	0.44		0.15	0.44	0.44
Unif. delay d1		38.5	28.8	46.5	46.1		41.9	19.3		37.8	24.8	17.4
Delay factor k		0.11	0.11	0.49	0.40		0.44	0.11		0.11	0.37	0.11
Increm. delay d2		0.6	0.7	79.1	46.4		21.9	0.1		0.7	4.1	0.2
PF factor		1.000	0.993	1.000	1.000		0.881	0.476		0.881	0.476	0.476
Control delay		39.1	29.3	125.6	92.4		58.8	9.3		34.0	15.9	8.4
Lane group LOS		D	C	F	F		E	A		C	B	A
Apprch. delay	31.9			110.3			26.5			16.1		
Approach LOS	C			F			C			B		
Intersec. delay	27.7			Intersection LOS						C		

MIT: CONVERT NB RT TO LANE 6 THRU NB THROUGH/RIGHT

SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	COLLEGE BLVD. @ WARING RD.					
Agency or Co.	USAI					Area Type	All other areas					
Date Performed	08/24/12					Jurisdiction	OCEANSIDE-INT#20/WITH MIT.					
Time Period	AM PEAK					Analysis Year	BUILDOUT ALT.#1-AM/WITH PROJEC					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	1	1	1	1	0	2	3	0	1	2	1
Lane group		LT	R	L	TR		L	TR		L	T	R
Volume (vph)	30	35	184	110	50	45	450	649	200	75	1207	140
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time		2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	2.0
Ext. eff. green		2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	2.0
Arrival type		4	4	4	4		5	5		5	5	5
Unit Extension		3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Ped/Bike/RTOR Volume	5	5	0	5	5	0	5	5	0	5	5	0
Lane Width		12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr		0	0	0	0		0	0		0	0	0
Unit Extension		3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Phasing	EB Only	WB Only	03	04	Excl. Left	Thru & RT	07	08				
Timing	G = 14.0	G = 7.0	G =	G =	G = 15.1	G = 44.0	G =	G =				
	Y = 4.6	Y = 4	Y =	Y =	Y = 4.6	Y = 6.7	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 100.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	71	200	120	103		489	922		82	1312	152	
Lane group cap.	254	449	121	118		519	2139		267	1561	684	
v/c ratio	0.28	0.45	0.99	0.87		0.94	0.43		0.31	0.84	0.22	
Green ratio	0.14	0.29	0.07	0.07		0.15	0.44		0.15	0.44	0.44	
Unif. delay d1	38.5	28.9	46.5	46.1		42.0	19.3		37.8	24.9	17.4	
Delay factor k	0.11	0.11	0.49	0.40		0.45	0.11		0.11	0.38	0.11	
Increm. delay d2	0.6	0.7	79.1	46.4		25.8	0.1		0.7	4.3	0.2	
PF factor	1.000	0.993	1.000	1.000		0.881	0.476		0.881	0.476	0.476	
Control delay	39.1	29.4	125.6	92.4		62.9	9.4		34.0	16.2	8.4	
Lane group LOS	D	C	F	F		E	A		C	B	A	
Apprch. delay	31.9			110.3			27.9			16.3		
Approach LOS	C			F			C			B		
Intersec. delay	28.4			Intersection LOS						C		

MIT: CONVERT NB RTO LANE TO THIRD THROUGH/RIGHT LANE

SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	COLLEGE BLVD. @					
Agency or Co.	USAI					Area Type	WARING RD.					
Date Performed	08/23/12					Jurisdiction	All other areas					
Time Period	PM PEAK					Analysis Year	OCEANSIDE-INT#20PM/WITH MIT.					
						BUILDOUT ALT.#1-PM/NO PROJEC						
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	1	1	1	1	0	2	3	0	1	2	1
Lane group		LT	R	L	TR		L	TR		L	T	R
Volume (vph)	105	55	390	130	55	120	380	1415	165	70	795	80
% Heavy veh	1	1	1	1	1	1	1	2	1	1	2	1
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time		2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	2.0
Ext. eff. green		2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	2.0
Arrival type		4	4	4	4		5	5		5	5	5
Unit Extension		3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Ped/Bike/RTOR Volume	5	5	0	5	5	0	5	5	0	5	5	0
Lane Width		12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr		0	0	0	0		0	0		0	0	0
Unit Extension		3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Phasing	EB Only	WB Only	03	04	Excl. Left	NB Only	Thru & RT	08				
Timing	G = 12.0	G = 10.0	G =	G =	G = 10.0	G = 11.1	G = 42.0	G =				
	Y = 4.6	Y = 4	Y =	Y =	Y = 4.6	Y = 5	Y = 6.7	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 110.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate		174	424	141	190		413	1717		76	864	87
Lane group cap.		197	532	160	149		811	2633		162	1354	599
v/c ratio		0.88	0.80	0.88	1.28		0.51	0.65		0.47	0.64	0.15
Green ratio		0.11	0.34	0.09	0.09		0.23	0.53		0.09	0.38	0.38
Unif. delay d1		48.3	32.7	49.4	50.0		36.7	18.7		47.5	27.8	22.3
Delay factor k		0.41	0.34	0.41	0.50		0.12	0.23		0.11	0.22	0.11
Increm. delay d2		34.2	8.3	39.2	165.7		0.5	0.6		2.1	1.0	0.1
PF factor		1.000	0.950	1.000	1.000		0.797	0.254		0.933	0.588	0.588
Control delay		82.5	39.4	88.6	215.7		29.8	5.3		46.5	17.4	13.2
Lane group LOS		F	D	F	F		C	A		D	B	B
Apprch. delay	51.9			161.6			10.1			19.2		
Approach LOS	D			F			B			B		
Intersec. delay	30.7			Intersection LOS						C		

MIT.: CONVERT NB RT0 LANE TO THIRD THROUGH/RIGHT LANE.

SHORT REPORT

General Information						Site Information					
Analyst	USAI					Intersection	COLLEGE BLVD.@				
Agency or Co.	USAI					Area Type	WARING RD.				
Date Performed	08/23/12					Jurisdiction	OCEANSIDE-				
Time Period	PM PEAK					Analysis Year	INT#20PM/WITH MIT.				
							BUILDOUT ALT.#1-PM/WITH PROJEC				

Volume and Timing Input														
			EB			WB			NB			SB		
			LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes			0	1	1	1	1	0	2	3	0	1	2	1
Lane group				LT	R	L	TR		L	TR		L	T	R
Volume (vph)			105	55	401	130	55	120	386	1425	165	70	816	80
% Heavy veh			1	1	1	1	1	1	1	2	1	1	2	1
PHF			0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Actuated (P/A)			A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time				2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	2.0
Ext. eff. green				2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	2.0
Arrival type				4	4	4	4		5	5		5	5	5
Unit Extension				3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Ped/Bike/RTOR Volume			5	5	0	5	5	0	5	5	0	5	5	0
Lane Width				12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0	12.0
Parking/Grade/Parking			N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr														
Bus stops/hr				0	0	0	0		0	0		0	0	0
Unit Extension				3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Phasing	EB Only	WB Only	03		04		Excl. Left		NB Only		Thru & RT		08	
Timing	G = 12.0	G = 10.0	G =		G =		G = 10.0		G = 11.1		G = 42.0		G =	
	Y = 4.6	Y = 4	Y =		Y =		Y = 4.6		Y = 5		Y = 6.7		Y =	
Duration of Analysis (hrs) = 0.25										Cycle Length C = 110.0				

Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate		174	436	141	190		420	1728		76	887	87
Lane group cap.		197	532	160	149		811	2634		162	1354	599
v/c ratio		0.88	0.82	0.88	1.28		0.52	0.66		0.47	0.66	0.15
Green ratio		0.11	0.34	0.09	0.09		0.23	0.53		0.09	0.38	0.38
Unif. delay d1		48.3	33.0	49.4	50.0		36.7	18.7		47.5	28.0	22.3
Delay factor k		0.41	0.36	0.41	0.50		0.12	0.23		0.11	0.23	0.11
Increm. delay d2		34.2	9.8	39.2	165.7		0.6	0.6		2.1	1.2	0.1
PF factor		1.000	0.950	1.000	1.000		0.797	0.254		0.933	0.588	0.588
Control delay		82.5	41.2	88.6	215.7		29.9	5.4		46.5	17.6	13.2
Lane group LOS		F	D	F	F		C	A		D	B	B
Apprch. delay	53.0			161.6			10.1			19.4		
Approach LOS	D			F			B			B		
Intersec. delay	30.9			Intersection LOS						C		

SHORT REPORT													
General Information							Site Information						
Analyst	USAI						Intersection						MARRON RD.@QUARRY CREEK CTR.
Agency or Co.	USAI						Area Type						All other areas
Date Performed	06/06/12						Jurisdiction						OCEANSIDE
Time Period	AM PEAK						Analysis Year						B.O. ALT#1-NO PROJECT
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	2	2	0	2	2	1	0	1	1	1	1	1	
Lane group	L	TR		L	T	R		LTR	R	L	LT	R	
Volume (vph)	84	137	56	104	392	104	35	5	49	98	5	35	
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2	
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	2.0	2.0		2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Ext. eff. green	2.0	2.0		2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Arrival type	3	3		3	3	3		3	3	3	3	3	
Unit Extension	3.0	3.0		3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5	10	0	
Lane Width	12.0	12.0		12.0	12.0	12.0		12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0		0	0	0		0	0	0	0	0	
Unit Extension	3.0	3.0		3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Phasing	Excl. Left	Thru & RT	03	04	NB Only	SB Only	07	08					
Timing	G = 10.0	G = 20.0	G =	G =	G = 10.0	G = 10.0	G =	G =					
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 5	Y =	Y =					
Duration of Analysis (hrs) = 0.25							Cycle Length C = 70.0						
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	91	210		113	426	113		43	53	70	42	38	
Lane group cap.	491	962		491	1013	663		253	212	249	251	218	
v/c ratio	0.19	0.22		0.23	0.42	0.17		0.17	0.25	0.28	0.17	0.17	
Green ratio	0.14	0.29		0.14	0.29	0.43		0.14	0.14	0.14	0.14	0.14	
Unif. delay d1	26.4	19.0		26.6	20.3	12.3		26.4	26.7	26.8	26.3	26.4	
Delay factor k	0.11	0.11		0.11	0.11	0.11		0.11	0.11	0.11	0.11	0.11	
Increm. delay d2	0.2	0.1		0.2	0.3	0.1		0.3	0.6	0.6	0.3	0.4	
PF factor	1.000	1.000		1.000	1.000	1.000		1.000	1.000	1.000	1.000	1.000	
Control delay	26.6	19.2		26.8	20.6	12.5		26.7	27.3	27.4	26.7	26.8	
Lane group LOS	C	B		C	C	B		C	C	C	C	C	
Apprch. delay	21.4			20.3			27.0			27.0			
Approach LOS	C			C			C			C			
Intersec. delay	21.9			Intersection LOS						C			

SHORT REPORT												
General Information							Site Information					
Analyst	USAI						Intersection					
Agency or Co.	USAI						MARRON RD.@QUARRY CREEK CTR.					
Date Performed	06/06/12						Area Type					
Time Period	AM PEAK						All other areas					
							Jurisdiction					
							OCEANSIDE					
							Analysis Year					
							B.O. ALT#1-WITH PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	2	0	2	2	1	0	1	1	1	1	1
Lane group	L	TR		L	T	R		LTR	R	L	LT	R
Volume (vph)	94	239	63	104	429	104	135	5	49	98	5	37
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0
Ext. eff. green	2.0	2.0		2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0
Arrival type	3	3		3	3	3		3	3	3	3	3
Unit Extension	3.0	3.0		3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5	10	0
Lane Width	12.0	12.0		12.0	12.0	12.0		12.0	12.0	12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0	0		0	0	0	0	0
Unit Extension	3.0	3.0		3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0
Phasing	Excl. Left	Thru & RT	03	04	NB Only	SB Only	07	08				
Timing	G = 10.0	G = 20.0	G =	G =	G = 10.0	G = 10.0	G =	G =				
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 5	Y =	Y =				
Duration of Analysis (hrs) = 0.25							Cycle Length C = 70.0					
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	102	328		113	466	113		152	53	80	32	40
Lane group cap.	491	977		491	1013	663		251	212	249	252	218
v/c ratio	0.21	0.34		0.23	0.46	0.17		0.61	0.25	0.32	0.13	0.18
Green ratio	0.14	0.29		0.14	0.29	0.43		0.14	0.14	0.14	0.14	0.14
Unif. delay d1	26.5	19.8		26.6	20.6	12.3		28.1	26.7	27.0	26.2	26.4
Delay factor k	0.11	0.11		0.11	0.11	0.11		0.19	0.11	0.11	0.11	0.11
Increm. delay d2	0.2	0.2		0.2	0.3	0.1		4.1	0.6	0.8	0.2	0.4
PF factor	1.000	1.000		1.000	1.000	1.000		1.000	1.000	1.000	1.000	1.000
Control delay	26.7	20.0		26.8	20.9	12.5		32.3	27.3	27.7	26.4	26.8
Lane group LOS	C	B		C	C	B		C	C	C	C	C
Apprch. delay	21.6			20.5			31.0			27.2		
Approach LOS	C			C			C			C		
Intersec. delay	22.9			Intersection LOS						C		

SHORT REPORT												
General Information						Site Information						
Analyst	USA/					Intersection	MARRON RD.@QUARRY					
Agency or Co.	USA/						CREEK CTR.					
Date Performed	06/06/12					Area Type	All other areas					
Time Period	PM PEAK					Jurisdiction	OCEANSIDE					
						Analysis Year	B.O.ALT#1-NO PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	2	0	2	2	1	0	1	1	1	1	1
Lane group	L	TR		L	T	R		LTR	R	L	LT	R
Volume (vph)	177	488	118	220	512	220	127	5	178	355	5	126
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0
Ext. eff. green	2.0	2.0		2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0
Arrival type	3	3		3	3	3		3	3	3	3	5
Unit Extension	3.0	3.0		3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	40	5	10	0
Lane Width	12.0	12.0		12.0	12.0	12.0		12.0	12.0	12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0	0		0	0	0	0	0
Unit Extension	3.0	3.0		3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0
Phasing	Excl. Left	Thru & RT	03	04	NB Only	SB Only	07	08				
Timing	G = 10.0	G = 27.0	G =	G =	G = 18.0	G = 25.0	G =	G =				
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 5	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 100.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	192	658		239	557	239		195	98	270	121	137
Lane group cap.	344	925		344	958	805		305	270	439	441	385
v/c ratio	0.56	0.71		0.69	0.58	0.30		0.64	0.36	0.62	0.27	0.36
Green ratio	0.10	0.27		0.10	0.27	0.52		0.18	0.18	0.25	0.25	0.25
Unif. delay d1	42.9	33.0		43.5	31.6	13.6		38.0	36.0	33.2	30.2	30.9
Delay factor k	0.16	0.27		0.26	0.17	0.11		0.22	0.11	0.20	0.11	0.11
Increm. delay d2	2.0	2.6		6.0	0.9	0.2		4.5	0.8	2.6	0.3	0.6
PF factor	1.000	1.000		1.000	1.000	1.000		1.000	1.000	1.000	1.000	0.778
Control delay	44.9	35.6		49.5	32.5	13.8		42.4	36.8	35.8	30.5	24.6
Lane group LOS	D	D		D	C	B		D	D	D	C	C
Apprch. delay	37.7			32.1			40.6			31.7		
Approach LOS	D			C			D			C		
Intersec. delay	34.7			Intersection LOS						C		

SHORT REPORT												
General Information							Site Information					
Analyst	USA/						Intersection					
Agency or Co.	USA/						MARRON RD.@QUARRY CREEK CTR.					
Date Performed	06/06/12						Area Type					
Time Period	PM PEAK						All other areas					
							Jurisdiction					
							OCEANSIDE					
							Analysis Year					
							B.O.AL#1-WITH PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	2	0	2	2	1	0	1	1	1	1	1
Lane group	L	TR		L	T	R		LTR	R	L	LT	R
Volume (vph)	183	543	122	220	626	220	135	5	178	355	5	134
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0
Ext. eff. green	2.0	2.0		2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0
Arrival type	3	3		3	3	3		3	3	3	3	5
Unit Extension	3.0	3.0		3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	40	5	10	0
Lane Width	12.0	12.0		12.0	12.0	12.0		12.0	12.0	12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0	0		0	0	0	0	0
Unit Extension	3.0	3.0		3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0
Phasing	Excl. Left	Thru & RT	03	04	NB Only	SB Only	07	08				
Timing	G = 10.0	G = 27.0	G =	G =	G = 18.0	G = 25.0	G =	G =				
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 5	Y =	Y =				
Duration of Analysis (hrs) = 0.25							Cycle Length C = 100.0					
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	199	723		239	680	239		204	98	282	109	146
Lane group cap.	344	927		344	958	805		305	270	439	441	385
v/c ratio	0.58	0.78		0.69	0.71	0.30		0.67	0.36	0.64	0.25	0.38
Green ratio	0.10	0.27		0.10	0.27	0.52		0.18	0.18	0.25	0.25	0.25
Unif. delay d1	43.0	33.8		43.5	33.0	13.6		38.2	36.0	33.5	30.0	31.1
Delay factor k	0.17	0.33		0.26	0.27	0.11		0.24	0.11	0.22	0.11	0.11
Increm. delay d2	2.4	4.3		6.0	2.5	0.2		5.6	0.8	3.2	0.3	0.6
PF factor	1.000	1.000		1.000	1.000	1.000		1.000	1.000	1.000	1.000	0.778
Control delay	45.4	38.1		49.5	35.4	13.8		43.8	36.8	36.7	30.3	24.8
Lane group LOS	D	D		D	D	B		D	D	D	C	C
Apprch. delay	39.7			33.9			41.5			32.2		
Approach LOS	D			C			D			C		
Intersec. delay	36.2			Intersection LOS						D		

SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection MARRON RD.@STREET B						
Agency or Co.	USAI					Area Type All other areas						
Date Performed	09/04/12					Jurisdiction CARLSBAD						
Time Period	AM PEAK					Analysis Year B.O.ALT#1\WITH PROJECT						
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	2	0	0	2	0	0	0	0	1	0	1
Lane group	L	T			TR					L		R
Volume (vph)	44	396			505	42				118		122
% Heavy veh	2	2			2	2				2		2
PHF	0.92	0.92			0.92	0.92				0.92		0.92
Actuated (P/A)	A	A			A	A				A		A
Startup lost time	2.0	2.0			2.0					2.0		2.0
Ext. eff. green	2.0	2.0			2.0					2.0		2.0
Arrival type	3	3			3					3		5
Unit Extension	3.0	3.0			3.0					3.0		3.0
Ped/Bike/RTOR Volume				5	10	0	5			5	10	0
Lane Width	12.0	12.0			12.0					12.0		12.0
Parking/Grade/Parking	N	0	N	N	0	N	N		N	N	0	N
Parking/hr												
Bus stops/hr	0	0			0					0		0
Unit Extension	3.0	3.0			3.0					3.0		3.0
Phasing	EB Only	Thru & RT	03	04	SB Only	06	07	08				
Timing	G = 10.0	G = 38.0	G =	G =	G = 19.0	G =	G =	G =				
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y =	Y =	Y =				
Duration of Analysis (hrs) = 0.25			Cycle Length C = 82.0									
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	48	430			595					128		133
Lane group cap.	216	2293			1621					410		357
v/c ratio	0.22	0.19			0.37					0.31		0.37
Green ratio	0.12	0.65			0.46					0.23		0.23
Unif. delay d1	32.5	5.8			14.2					26.1		26.5
Delay factor k	0.11	0.11			0.11					0.11		0.11
Increm. delay d2	0.5	0.0			0.1					0.4		0.7
PF factor	1.000	1.000			1.000					1.000		0.799
Control delay	33.0	5.9			14.4					26.5		21.8
Lane group LOS	C	A			B					C		C
Apprch. delay	8.6			14.4						24.1		
Approach LOS	A			B						C		
Intersec. delay	14.2			Intersection LOS						B		

SHORT REPORT													
General Information						Site Information							
Analyst	USAI					Intersection	MARRON RD.@STREET B						
Agency or Co.	USAI					Area Type	All other areas						
Date Performed	09/04/12					Jurisdiction	CARLSBAD						
Time Period	PM PEAK					Analysis Year	B.O.ALT#1-WITH PROJECT						
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	1	2	0	0	2	0	0	0	0	1	0	1	
Lane group	L	T			TR					L		R	
Volume (vph)	135	784			832	131				64		66	
% Heavy veh	2	2			2	2				2		2	
PHF	0.92	0.92			0.92	0.92				0.92		0.92	
Actuated (P/A)	A	A			A	A				A		A	
Startup lost time	2.0	2.0			2.0					2.0		2.0	
Ext. eff. green	2.0	2.0			2.0					2.0		2.0	
Arrival type	3	3			3					3		5	
Unit Extension	3.0	3.0			3.0					3.0		3.0	
Ped/Bike/RTOR Volume				5	10	0	5			5	10	0	
Lane Width	12.0	12.0			12.0					12.0		12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N		N	N	0	N	
Parking/hr													
Bus stops/hr	0	0			0					0		0	
Unit Extension	3.0	3.0			3.0					3.0		3.0	
Phasing	EB Only	Thru & RT	03	04	SB Only	06	07	08					
Timing	G = 10.0	G = 38.0	G =	G =	G = 19.0	G =	G =	G =					
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y =	Y =	Y =					
Duration of Analysis (hrs) = 0.25			Cycle Length C = 82.0										
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	147	852			1046					70		72	
Lane group cap.	216	2293			1603					410		357	
v/c ratio	0.68	0.37			0.65					0.17		0.20	
Green ratio	0.12	0.65			0.46					0.23		0.23	
Unif. delay d1	34.5	6.7			16.9					25.2		25.4	
Delay factor k	0.25	0.11			0.23					0.11		0.11	
Increm. delay d2	8.4	0.1			1.0					0.2		0.3	
PF factor	1.000	1.000			1.000					1.000		0.799	
Control delay	42.9	6.9			17.9					25.4		20.6	
Lane group LOS	D	A			B					C		C	
Apprch. delay	12.2			17.9						22.9			
Approach LOS	B			B						C			
Intersec. delay	15.6			Intersection LOS						B			

FAIR-SHARE % BASED ON ADTCOLLEGE BLVD. (VISTA WAY TO PLAZA DR.)SEGMENT ALT. #1I. TOTAL VOLUME AT BUILDOUT

$$\begin{array}{r}
 \text{BUILDOUT WITH PROJECT} \quad 52,000 \text{ ADT} \\
 \text{BUILDOUT WITHOUT PROJECT} \quad - 50,900 \text{ ADT} \\
 \hline
 \text{PROJECT ONLY INCREASE} = \quad 1,100 \text{ ADT}
 \end{array}$$

II. EXISTING VOLUME

$$\begin{array}{r}
 \text{EXISTING} \quad 44,884 \text{ ADT} \\
 \hline
 \end{array}$$

III. TOTAL INCREASE

$$\begin{array}{r}
 \text{BUILDOUT} \quad 52,000 \text{ ADT} \\
 \text{EXISTING} \quad - 44,884 \text{ ADT} \\
 \hline
 \text{TOTAL INCREASE} = \quad 7,116 \text{ ADT}
 \end{array}$$

IV. PROJECT PERCENTAGE OF TOTAL INCREASE

$$\frac{\text{PROJECT ONLY}}{\text{TOTAL INCREASE}} = \frac{1,100 \text{ ADT}}{7,116 \text{ ADT}} = \underline{\underline{15.5 \%}}$$

FAIR-SHARE % BASED ON ADTCOLLEGE BLVD. (PLAZA DR. TO MARDEN RD)SEGMENT ALT. #1I. TOTAL VOLUME AT BUILDOUT

$$\begin{array}{r}
 \text{BUILDOUT WITH PROJECT} \quad 41,100 \text{ ADT} \\
 \text{BUILDOUT WITHOUT PROJECT} \quad - 39,500 \text{ ADT} \\
 \hline
 \text{PROJECT ONLY INCREASE} = 1,600 \text{ ADT}
 \end{array}$$

F. EXISTING VOLUME

$$\begin{array}{r}
 \text{EXISTING} \quad 36,219 \text{ ADT}
 \end{array}$$

III. TOTAL INCREASE

$$\begin{array}{r}
 \text{BUILDOUT} \quad 41,100 \text{ ADT} \\
 \text{EXISTING} \quad - 36,219 \text{ ADT} \\
 \hline
 \text{TOTAL INCREASE} = 4,881 \text{ ADT}
 \end{array}$$

IV. PROJECT PERCENTAGE OF TOTAL INCREASE

$$\frac{\text{PROJECT ONLY}}{\text{TOTAL INCREASE}} = \frac{1,600 \text{ ADT}}{4,881 \text{ ADT}} = \underline{\underline{32.8 \%}}$$

FAIR-SHARE %COLLEGE BLVD. (MARRON/LAKE TO CITY LIMIT)SEGMENT ALT. #1I. TOTAL VOLUME AT BUILDOUT

<u>BUILDOUT WITH PROJECT</u>	43,300 ADT
<u>BUILDOUT WITHOUT PROJECT</u>	- 42,100 ADT
<u>PROJECT ONLY INCREASE</u>	= 1,200 ADT

II. EXISTING VOLUME

<u>EXISTING</u>	24,475 ADT
-----------------	------------

III. TOTAL INCREASE

<u>BUILDOUT</u>	43,300 ADT
<u>EXISTING</u>	- 24,475 ADT
<u>TOTAL INCREASE</u>	= 18,825 ADT

IV. PROJECT PERCENTAGE OF TOTAL INCREASE

$$\frac{\text{PROJECT ONLY}}{\text{TOTAL INCREASE}} = \frac{1,200 \text{ ADT}}{18,825 \text{ ADT}} = \underline{\underline{6.4\%}}$$

FAIR-SHARE %ALT. - 1INTERSECTION (COLLEGE / MARION - LAKE)I. TOTAL VOLUME AT BUILDOUTPMBUILDOUT WITH PROJECT

5937

BUILDOUT WITHOUT PROJECT

- 5707

PROJECT ONLY INCREASE =230F. EXISTING VOLUMEEXISTING4202III. TOTAL INCREASEBUILDOUT

5937

EXISTING

- 4202

TOTAL INCREASE =1735IV. PROJECT PERCENTAGE OF TOTAL INCREASE

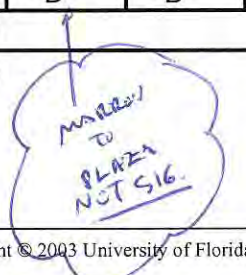
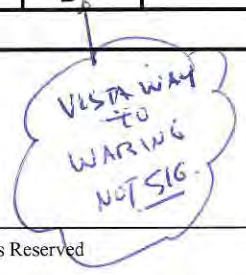
$$\frac{\text{PROJECT ONLY}}{\text{TOTAL INCREASE}} = \frac{230}{1735} = \underline{\underline{13.3\% \text{ PM}}}$$

ARTERIAL ANALYSIS WORKSHEETS

16 PAGES

URBAN STREET WORKSHEET #1

General Information		Site Information							
Analyst	USAI	Urban Street	COLLEGE BLVD.						
Agency/Co.	USAI	Direction of Travel	North-bound						
Date Performed	09/04/12	Jurisdiction	OCEANSIDE						
Time Period	AM PEAK HOUR	Analysis Year	BUILDOUT NO PROJECT/ALT-1						
Project Description: QUARRY CREEK/COLL									
Input Parameters									
Analysis Period(h) T = 0.25	Segments								
	1	2	3	4	5	6	7	8	
Cycle length, C (s)	100.0	100.0	100.0	100.0	100.0				
Eff. green to cycle ratio, g/C	0.270	0.300	0.617	0.420	0.440				
v/c ratio for lane group, X	0.783	0.762	0.281	0.415	0.439				
Cap of lane group, c (veh/h)	958	1463	4174	2131	1561				
Pct Veh on Grn., PVG									
Arrival type, AT	5	5	5	5	5				
Unit Extension, UE (sec)	3.0	3.0	3.0	3.0	3.0				
Length of segment, L (mi)	0.34	0.27	0.05	0.10	0.16				
Initial Queue, Qb (veh)	0	0	0	0	0				
Urban street class, SC	2	2	2	2	2				
Free-flow speed, FSS (mi/h)	40	40	40	40	40				
Running Time, TR (s)	33.9	28.8	5.8	11.5	18.4				
Other delay, (s)	0.0	0.0	0.0	0.0	0.0				
Delay Computation									
Uniform delay, d1 (s)	33.8	31.8	8.9	20.4	19.4	5.4	5.4	5.4	
Incremental delay adj, k	0.33	0.31	0.11	0.11	0.11	0.50	0.50	0.50	
Upstream filtering adj factor, I	1.000	0.528	0.561	0.970	0.914				
Incremental delay, d2 (s)	4.3	1.3	0.0	0.1	0.2	4.0			
Initial queue delay, d3 (s)	0	0	0	0	0				
Progression adj factor, PF	0.753	0.714	0.000	0.517	0.476	0.256	0.256	0.256	
Control delay, d (s)	29.7	24.0	0.0	10.7	9.4				
Segment LOS Determination									
Travel time, ST (s)	63.6	52.8	5.8	22.2	27.8				
Travel speed, SA (mi/h)	19.2	18.4	31.2	16.2	20.7				
Segment LOS	D	D	B	E	D				
Urban Street LOS Determination									
Total travel time (s)	172.2								
Total length (mi)	0.92								
Total travel speed, SA (mi/h)	19.2								
Total urban street LOS	D								

URBAN STREET WORKSHEET #1								
General Information				Site Information				
Analyst	USAI			Urban Street	COLLEGE BLVD.			
Agency/Co.	USAI			Direction of Travel	North-bound			
Date Performed	09/04/12			Jurisdiction	OCEANSIDE			
Time Period	AM PEAK HOUR			Analysis Year	BUILDOUT WITH PROJECT/ALT-1			
Project Description: QUARRY CREEK/COLL								
Input Parameters								
Analysis Period(h) T = 0.25	Segments							
	1	2	3	4	5	6	7	8
Cycle length, C (s)	100.0	100.0	100.0	100.0	100.0			
Eff. green to cycle ratio, g/C	0.270	0.300	0.640	0.420	0.440			
v/c ratio for lane group, X	0.799	0.805	0.283	0.432	0.452			
Cap of lane group, c (veh/h)	958	1459	4330	2131	1561			
Pct Veh on Grn., PVG								
Arrival type, AT	5	5	5	5	5			
Unit Extension, UE (sec)	3.0	3.0	3.0	3.0	3.0			
Length of segment, L (mi)	0.34	0.27	0.05	0.10	0.16			
Initial Queue, Qb (veh)	0	0	0	0	0			
Urban street class, SC	2	2	2	2	2			
Free-flow speed, FSS (mi/h)	40	40	40	40	40			
Running Time, TR (s)	33.9	28.8	5.8	11.5	18.4			
Other delay, (s)	0.0	0.0	0.0	0.0	0.0			
Delay Computation								
Uniform delay, d1 (s)	34.0	32.3	7.9	20.6	19.6	5.4	5.4	5.4
Incremental delay adj, k	0.34	0.35	0.11	0.11	0.11	0.50	0.50	0.50
Upstream filtering adj factor, I	1.000	0.502	0.491	0.969	0.904			
Incremental delay, d2 (s)	4.8	1.7	0.0	0.1	0.2	3.9		
Initial queue delay, d3 (s)	0	0	0	0	0			
Progression adj factor, PF	0.753	0.714	0.000	0.517	0.476	0.256	0.256	0.256
Control delay, d (s)	30.4	24.8	0.0	10.8	9.5			
Segment LOS Determination								
Travel time, ST (s)	64.3	53.7	5.8	22.3	27.9			
Travel speed, SA (mi/h)	19.0	18.1	31.2	16.2	20.6			
Segment LOS	D	D	B	E	D			
Urban Street LOS Determination								
Total travel time (s)	173.9	 						
Total length (mi)	0.92							
Total travel speed, SA (mi/h)	19.0							
Total urban street LOS	D							

URBAN STREET WORKSHEET #1								
General Information				Site Information				
Analyst	USAI			Urban Street	COLLEGE BLVD.			
Agency/Co.	USAI			Direction of Travel	North-bound			
Date Performed	9/4/2012			Jurisdiction	OCEANSIDE			
Time Period	PM PEAK HOUR			Analysis Year	2030 ALT.-1/NO PROJECT			
Project Description: QUARRY CREEK								
Input Parameters								
Analysis Period(h) T = 0.25	Segments							
	1	2	3	4	5	6	7	8
Cycle length, C (s)	99.5	110.0	110.0	110.0	110.0			
Eff. green to cycle ratio, g/C	0.341	0.347	0.565	0.379	0.528			
v/c ratio for lane group, X	1.055	1.040	0.469	0.777	0.821			
Cap of lane group, c (veh/h)	1208	1704	3825	1924	1873			
Pct Veh on Grn., PVG								
Arrival type, AT	5	5	5	5	5			
Unit Extension, UE (sec)	3.0	3.0	3.0	3.0	3.0			
Length of segment, L (mi)	0.34	0.27	0.05	0.10	0.16			
Initial Queue, Qb (veh)	0	0	0	0	0			
Urban street class, SC	2	2	2	2	2			
Free-flow speed, FSS (mi/h)	40	40	40	40	40			
Running Time, TR (s)	33.9	28.8	5.8	11.5	18.4			
Other delay, (s)	0.0	0.0	0.0	0.0	0.0			
Delay Computation								
Uniform delay, d1 (s)	32.8	35.9	14.1	30.1	21.6	5.4	5.4	5.4
Incremental delay adj, k	0.50	0.50	0.11	0.33	0.36	0.50	0.50	0.50
Upstream filtering adj factor, I	1.000	0.090	0.090	0.880	0.537			
Incremental delay, d2 (s)	41.6	20.2	0.0	1.8	1.7	2.1		
Initial queue delay, d3 (s)	0	0	0	0	0			
Progression adj factor, PF	0.655	0.645	0.132	0.593	0.253	0.256	0.256	0.256
Control delay, d (s)	63.1	43.3	1.9	19.7	7.2			
Segment LOS Determination								
Travel time, ST (s)	96.9	72.2	7.6	31.2	25.6			
Travel speed, SA (mi/h)	12.6	13.5	23.6	11.6	22.5			
Segment LOS	F	E	C	F	C			
Urban Street LOS Determination								
Total travel time (s)	233.4							
Total length (mi)	0.92							
Total travel speed, SA (mi/h)	14.2							
Total urban street LOS	E							

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Version 4.1f

URBAN STREET WORKSHEET #1								
General Information				Site Information				
Analyst	USAI			Urban Street	COLLEGE BLVD.			
Agency/Co.	USAI			Direction of Travel	North-bound			
Date Performed	9/4/2012			Jurisdiction	OCEANSIDE			
Time Period	PM PEAK HOUR			Analysis Year	2030 ALT.-1/WITH PROJECT			
Project Description: QUARRY CREEK								
Input Parameters								
Analysis Period(h) T = 0.25	Segments							
	1	2	3	4	5	6	7	8
Cycle length, C (s)	99.5	110.0	110.0	110.0	110.0			
Eff. green to cycle ratio, g/C	0.367	0.329	0.565	0.379	0.528			
v/c ratio for lane group, X	1.045	1.091	0.477	0.788	0.827			
Cap of lane group, c (veh/h)	1301	1612	3825	1924	1873			
Pct Veh on Grn., PVG								
Arrival type, AT	5	5	5	5	5			
Unit Extension, UE (sec)	3.0	3.0	3.0	3.0	3.0			
Length of segment, L (mi)	0.34	0.27	0.05	0.10	0.16			
Initial Queue, Qb (veh)	0	0	0	0	0			
Urban street class, SC	2	2	2	2	2			
Free-flow speed, FSS (mi/h)	40	40	40	40	40			
Running Time, TR (s)	33.9	28.8	5.8	11.5	18.4			
Other delay, (s)	0.0	0.0	0.0	0.0	0.0			
Delay Computation								
Uniform delay, d1 (s)	31.5	36.9	14.2	30.2	21.7	5.4	5.4	5.4
Incremental delay adj, k	0.50	0.50	0.11	0.33	0.37	0.50	0.50	0.50
Upstream filtering adj factor, I	1.000	0.090	0.090	0.875	0.520			
Incremental delay, d2 (s)	37.7	42.2	0.0	2.0	1.7	2.0		
Initial queue delay, d3 (s)	0	0	0	0	0			
Progression adj factor, PF	0.614	0.673	0.132	0.593	0.253	0.256	0.256	0.256
Control delay, d (s)	57.0	67.0	1.9	19.9	7.2			
Segment LOS Determination								
Travel time, ST (s)	90.9	95.9	7.6	31.4	25.6			
Travel speed, SA (mi/h)	13.5	10.1	23.6	11.5	22.5			
Segment LOS	E	F	C	F	C			
Urban Street LOS Determination								
Total travel time (s)	251.4							
Total length (mi)	0.92							
Total travel speed, SA (mi/h)	13.2							
Total urban street LOS	E							



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MARION LAKE
TO
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SLOWDOWN

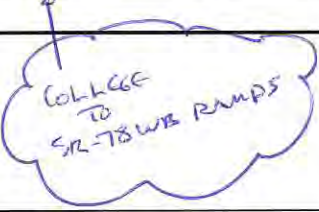
VISTAWAY
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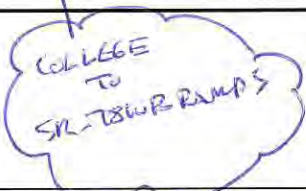
URBAN STREET WORKSHEET #1								
General Information				Site Information				
Analyst	USAI			Urban Street	COLLEGE BLVD.			
Agency/Co.	USAI			Direction of Travel	South-bound			
Date Performed	09/04/12			Jurisdiction	OCEANSIDE			
Time Period	AM PEAK HOUR			Analysis Year	BUILDOUT NO PROJECT/ALT-1			
Project Description: QUARRY CREEK/COLL2AMWPSB								
Input Parameters								
Analysis Period(h) T = 0.25	Segments							
	1	2	3	4	5	6	7	8
Cycle length, C (s)	100.0	100.0	100.0	100.0	100.0			
Eff. green to cycle ratio, g/C	0.440	0.420	0.617	0.530	0.400			
v/c ratio for lane group, X	0.835	0.717	0.420	0.527	0.923			
Cap of lane group, c (veh/h)	1561	2120	4174	2647	1419			
Pct Veh on Grn., PVG								
Arrival type, AT	5	5	5	5	5			
Unit Extension, UE (sec)	3.0	3.0	3.0	3.0	3.0			
Length of segment, L (mi)	0.25	0.16	0.10	0.05	0.27			
Initial Queue, Qb (veh)	0	0	0	0	0			
Urban street class, SC	2	2	2	2	2			
Free-flow speed, FSS (mi/h)	40	40	40	40	40			
Running Time, TR (s)	27.5	18.4	11.5	5.8	28.8			
Other delay, (s)	0.0	0.0	0.0	0.0	0.0			
Delay Computation								
Uniform delay, d1 (s)	24.8	24.1	9.9	15.3	28.5	5.4	5.4	5.4
Incremental delay adj, k	0.37	0.28	0.11	0.13	0.44	0.50	0.50	0.50
Upstream filtering adj factor, I	1.000	0.438	0.626	0.911	0.836			
Incremental delay, d2 (s)	4.1	0.5	0.0	0.2	8.9	1.2		
Initial queue delay, d3 (s)	0	0	0	0	0			
Progression adj factor, PF	0.476	0.517	0.000	0.248	0.555	0.256	0.256	0.256
Control delay, d (s)	15.9	13.0	0.0	4.0	24.8			
Segment LOS Determination								
Travel time, ST (s)	43.4	31.4	11.5	9.7	53.6			
Travel speed, SA (mi/h)	20.7	18.4	31.2	18.5	18.1			
Segment LOS	D	D	B	D	D			
Urban Street LOS Determination								
Total travel time (s)	149.7	 						
Total length (mi)	0.83							
Total travel speed, SA (mi/h)	20.0							
Total urban street LOS	D							

URBAN STREET WORKSHEET #1								
General Information				Site Information				
Analyst	USAI			Urban Street	COLLEGE BLVD.			
Agency/Co.	USAI			Direction of Travel	South-bound			
Date Performed	09/04/12			Jurisdiction	OCEANSIDE			
Time Period	AM PEAK HOUR			Analysis Year	BUILDOUT WITH PROJECT/ALT-1			
Project Description: QUARRY CREEK/COLL2AMWPSB								
Input Parameters								
Analysis Period(h) T = 0.25	Segments							
	1	2	3	4	5	6	7	8
Cycle length, C (s)	100.0	100.0	100.0	100.0	100.0			
Eff. green to cycle ratio, g/C	0.440	0.420	0.640	0.530	0.400			
v/c ratio for lane group, X	0.840	0.722	0.330	0.541	0.951			
Cap of lane group, c (veh/h)	1561	2120	5412	2640	1419			
Pct Veh on Grn., PVG								
Arrival type, AT	5	5	5	5	5			
Unit Extension, UE (sec)	3.0	3.0	3.0	3.0	3.0			
Length of segment, L (mi)	0.25	0.16	0.10	0.05	0.27			
Initial Queue, Qb (veh)	0	0	0	0	0			
Urban street class, SC	2	2	2	2	2			
Free-flow speed, FSS (mi/h)	40	40	40	40	40			
Running Time, TR (s)	27.5	18.4	11.5	5.8	28.8			
Other delay, (s)	0.0	0.0	0.0	0.0	0.0			
Delay Computation								
Uniform delay, d1 (s)	24.9	24.1	8.2	15.5	29.1	5.4	5.4	5.4
Incremental delay adj, k	0.38	0.28	0.11	0.14	0.46	0.50	0.50	0.50
Upstream filtering adj factor, I	1.000	0.429	0.620	0.953	0.824			
Incremental delay, d2 (s)	4.3	0.5	0.0	0.2	12.2	0.9		
Initial queue delay, d3 (s)	0	0	0	0	0			
Progression adj factor, PF	0.476	0.517	0.000	0.248	0.555	0.256	0.256	0.256
Control delay, d (s)	16.1	13.0	0.0	4.1	28.3			
Segment LOS Determination								
Travel time, ST (s)	43.6	31.4	11.5	9.8	57.1			
Travel speed, SA (mi/h)	20.6	18.3	31.2	18.4	17.0			
Segment LOS	D	D	B	D	D			
Urban Street LOS Determination								
Total travel time (s)	153.5							
Total length (mi)	0.83							
Total travel speed, SA (mi/h)	19.5							
Total urban street LOS	D							

URBAN STREET WORKSHEET #1								
General Information					Site Information			
Analyst	USAI				Urban Street	COLLEGE BLVD.		
Agency/Co.	USAI				Direction of Travel	South-bound		
Date Performed	09/04/12				Jurisdiction	OCEANSIDE		
Time Period	PM PEAK HOUR				Analysis Year	BUILDOUT NO PROJECT/ALT-1		
Project Description: QUARRY CREEK/COLL2AMWPSB								
Input Parameters								
Analysis Period(h) T = 0.25	Segments							
	1	2	3	4	5	6	7	8
Cycle length, C (s)	110.0	110.0	110.0	110.0	99.5			
Eff. green to cycle ratio, g/C	0.382	0.283	0.565	0.504	0.341			
v/c ratio for lane group, X	0.638	0.945	0.417	0.528	0.693			
Cap of lane group, c (veh/h)	1354	1415	3825	2534	1208			
Pct Veh on Grn., PVG								
Arrival type, AT	5	5	5	5	5			
Unit Extension, UE (sec)	3.0	3.0	3.0	3.0	3.0			
Length of segment, L (mi)	0.25	0.16	0.10	0.05	0.27			
Initial Queue, Qb (veh)	0	0	0	0	0			
Urban street class, SC	2	2	2	2	2			
Free-flow speed, FSS (mi/h)	40	40	40	40	40			
Running Time, TR (s)	27.5	18.4	11.5	5.8	28.8			
Other delay, (s)	0.0	0.0	0.0	0.0	0.0			
Delay Computation								
Uniform delay, d1 (s)	27.8	38.6	13.6	18.5	28.3	5.4	5.4	5.4
Incremental delay adj, k	0.22	0.46	0.11	0.13	0.26	0.50	0.50	0.50
Upstream filtering adj factor, I	1.000	0.727	0.218	0.913	0.836			
Incremental delay, d2 (s)	1.0	10.3	0.0	0.2	1.4	2.9		
Initial queue delay, d3 (s)	0	0	0	0	0			
Progression adj factor, PF	0.588	0.737	0.132	0.323	0.655	0.256	0.256	0.256
Control delay, d (s)	17.4	38.7	1.8	6.2	20.0			
Segment LOS Determination								
Travel time, ST (s)	44.9	57.1	13.3	11.9	48.8			
Travel speed, SA (mi/h)	20.1	10.1	27.0	15.1	19.9			
Segment LOS	D	F	C	E	D			
Urban Street LOS Determination								
Total travel time (s)	176.0							
Total length (mi)	0.83							
Total travel speed, SA (mi/h)	17.0							
Total urban street LOS	E							

URBAN STREET WORKSHEET #1								
General Information					Site Information			
Analyst	USAI				Urban Street	COLLEGE BLVD.		
Agency/Co.	USAI				Direction of Travel	South-bound		
Date Performed	09/04/12				Jurisdiction	OCEANSIDE		
Time Period	PM PEAK HOUR				Analysis Year	BUILDOUT WITH PROJECT/ALT-1		
Project Description: QUARRY CREEK/COLL2AMWPSB								
Input Parameters								
Analysis Period(h) T = 0.25	Segments							
	1	2	3	4	5	6	7	8
Cycle length, C (s)	110.0	110.0	110.0	110.0	99.5			
Eff. green to cycle ratio, g/C	0.382	0.283	0.565	0.504	0.367			
v/c ratio for lane group, X	0.655	0.968	0.444	0.576	0.681			
Cap of lane group, c (veh/h)	1354	1416	3825	2513	1301			
Pct Veh on Grn., PVG								
Arrival type, AT	5	5	5	5	5			
Unit Extension, UE (sec)	3.0	3.0	3.0	3.0	3.0			
Length of segment, L (mi)	0.25	0.16	0.10	0.05	0.27			
Initial Queue, Qb (veh)	0	0	0	0	0			
Urban street class, SC	2	2	2	2	2			
Free-flow speed, FSS (mi/h)	40	40	40	40	40			
Running Time, TR (s)	27.5	18.4	11.5	5.8	28.8			
Other delay, (s)	0.0	0.0	0.0	0.0	0.0			
Delay Computation								
Uniform delay, d1 (s)	28.0	39.0	13.9	19.1	26.6	5.4	5.4	5.4
Incremental delay adj, k	0.23	0.47	0.11	0.17	0.25	0.50	0.50	0.50
Upstream filtering adj factor, I	1.000	0.707	0.167	0.896	0.792			
Incremental delay, d2 (s)	1.2	13.3	0.0	0.3	1.2	3.0		
Initial queue delay, d3 (s)	0	0	0	0	0			
Progression adj factor, PF	0.588	0.737	0.132	0.323	0.614	0.256	0.256	0.256
Control delay, d (s)	17.6	42.0	1.8	6.5	17.5			
Segment LOS Determination								
Travel time, ST (s)	45.1	60.4	13.3	12.2	46.3			
Travel speed, SA (mi/h)	19.9	9.5	27.0	14.7	21.0			
Segment LOS	D	F	C	E	D			
Urban Street LOS Determination								
Total travel time (s)	177.4							
Total length (mi)	0.83							
Total travel speed, SA (mi/h)	16.8							
Total urban street LOS	E							

URBAN STREET WORKSHEET #1								
General Information				Site Information				
Analyst USAI				Urban Street VISTA WAY				
Agency/Co. USAI				Direction of Travel East-bound				
Date Performed 9/4/2012				Jurisdiction OCEANSIDE				
Time Period AM PEAK HOUR				Analysis Year 2030 ALT-1/NO PROJECT				
Project Description:								
Input Parameters								
Analysis Period(h) T = 0.25	Segments							
	1	2	3	4	5	6	7	8
Cycle length, C (s)	100.0	100.0						
Eff. green to cycle ratio, g/C	0.070	0.260						
v/c ratio for lane group, X	0.573	0.691						
Cap of lane group, c (veh/h)	248	922						
Pct Veh on Grn., PVG								
Arrival type, AT	5	5						
Unit Extension, UE (sec)	3.0	3.0						
Length of segment, L (mi)	0.15	0.09						
Initial Queue, Qb (veh)	0	0						
Urban street class, SC	2	2						
Free-flow speed, FSS (mi/h)	40	40						
Running Time, TR (s)	17.3	10.4						
Other delay, (s)	0.0	0.0						
Delay Computation								
Uniform delay, d1 (s)	45.1	33.4	5.4	5.4	5.4	5.4	5.4	5.4
Incremental delay adj, k	0.17	0.26	0.50	0.50	0.50	0.50	0.50	0.50
Upstream filtering adj factor, I	1.000	0.796						
Incremental delay, d2 (s)	3.2	1.8	2.9					
Initial queue delay, d3 (s)	0	0						
Progression adj factor, PF	0.950	0.766	0.256	0.256	0.256	0.256	0.256	0.256
Control delay, d (s)	46.0	27.3						
Segment LOS Determination								
Travel time, ST (s)	63.2	37.7						
Travel speed, SA (mi/h)	8.5	8.6						
Segment LOS	F	F						
Urban Street LOS Determination								
Total travel time (s)	100.9							
Total length (mi)	0.24							
Total travel speed, SA (mi/h)	8.6							
Total urban street LOS	F							

URBAN STREET WORKSHEET #1								
General Information				Site Information				
Analyst USAI				Urban Street VISTA WAY				
Agency/Co. USAI				Direction of Travel East-bound				
Date Performed 9/4/2012				Jurisdiction OCEANSIDE				
Time Period AM PEAK HOUR				Analysis Year 2030 ALT-1/WITH PROJECT				
Project Description:								
Input Parameters								
Analysis Period(h) T = 0.25	Segments							
	1	2	3	4	5	6	7	8
Cycle length, C (s)	100.0	100.0						
Eff. green to cycle ratio, g/C	0.070	0.260						
v/c ratio for lane group, X	0.573	0.704						
Cap of lane group, c (veh/h)	248	922						
Pct Veh on Grn., PVG								
Arrival type, AT	5	5						
Unit Extension, UE (sec)	3.0	3.0						
Length of segment, L (mi)	0.15	0.09						
Initial Queue, Qb (veh)	0	0						
Urban street class, SC	2	2						
Free-flow speed, FSS (mi/h)	40	40						
Running Time, TR (s)	17.3	10.4						
Other delay, (s)	0.0	0.0						
Delay Computation								
Uniform delay, d1 (s)	45.1	33.5	5.4	5.4	5.4	5.4	5.4	5.4
Incremental delay adj, k	0.17	0.27	0.50	0.50	0.50	0.50	0.50	0.50
Upstream filtering adj factor, I	1.000	0.796						
Incremental delay, d2 (s)	3.2	2.0	2.9					
Initial queue delay, d3 (s)	0	0						
Progression adj factor, PF	0.950	0.766	0.256	0.256	0.256	0.256	0.256	0.256
Control delay, d (s)	46.0	27.6						
Segment LOS Determination								
Travel time, ST (s)	63.2	38.0						
Travel speed, SA (mi/h)	8.5	8.5						
Segment LOS	F	F						
Urban Street LOS Determination								
Total travel time (s)	101.2							
Total length (mi)	0.24							
Total travel speed, SA (mi/h)	8.5							
Total urban street LOS	F							

URBAN STREET WORKSHEET #1								
General Information				Site Information				
Analyst	USAI			Urban Street	VISTA WAY			
Agency/Co.	USAI			Direction of Travel	East-bound			
Date Performed	9/4/2012			Jurisdiction	OCEANSIDE			
Time Period	PM PEAK HOUR			Analysis Year	2030 ALT-1/NO PROJECT			
Project Description:								
Input Parameters								
Analysis Period(h) T = 0.25	Segments							
	1	2	3	4	5	6	7	8
Cycle length, C (s)	110.0	110.0						
Eff. green to cycle ratio, g/C	0.091	0.173						
v/c ratio for lane group, X	0.391	0.892						
Cap of lane group, c (veh/h)	322	613						
Pct Veh on Grn., PVG								
Arrival type, AT	5	5						
Unit Extension, UE (sec)	3.0	3.0						
Length of segment, L (mi)	0.15	0.09						
Initial Queue, Qb (veh)	0	0						
Urban street class, SC	2	2						
Free-flow speed, FSS (mi/h)	40	40						
Running Time, TR (s)	17.3	10.4						
Other delay, (s)	0.0	0.0						
Delay Computation								
Uniform delay, d1 (s)	47.1	44.5	5.4	5.4	5.4	5.4	5.4	5.4
Incremental delay adj, k	0.11	0.42	0.50	0.50	0.50	0.50	0.50	0.50
Upstream filtering adj factor, I	1.000	0.926						
Incremental delay, d2 (s)	0.8	14.4	1.5					
Initial queue delay, d3 (s)	0	0						
Progression adj factor, PF	0.933	0.861	0.256	0.256	0.256	0.256	0.256	0.256
Control delay, d (s)	44.8	52.8						
Segment LOS Determination								
Travel time, ST (s)	62.0	63.1						
Travel speed, SA (mi/h)	8.7	5.1						
Segment LOS	F	F						
Urban Street LOS Determination								
Total travel time (s)	125.1							
Total length (mi)	0.24							
Total travel speed, SA (mi/h)	6.9							
Total urban street LOS	F							

COLLEGE
TO
SR-78 WB RAMP

URBAN STREET WORKSHEET #1								
General Information				Site Information				
Analyst USAI				Urban Street VISTA WAY				
Agency/Co. USAI				Direction of Travel East-bound				
Date Performed 9/4/2012				Jurisdiction OCEANSIDE				
Time Period PM PEAK HOUR				Analysis Year 2030 ALT-1/WITH PROJECT				
Project Description:								
Input Parameters								
Analysis Period(h) T = 0.25	Segments							
	1	2	3	4	5	6	7	8
Cycle length, C (s)	110.0	110.0						
Eff. green to cycle ratio, g/C	0.091	0.173						
v/c ratio for lane group, X	0.391	0.904						
Cap of lane group, c (veh/h)	322	613						
Pct Veh on Grn., PVG								
Arrival type, AT	5	5						
Unit Extension, UE (sec)	3.0	3.0						
Length of segment, L (mi)	0.15	0.09						
Initial Queue, Qb (veh)	0	0						
Urban street class, SC	2	2						
Free-flow speed, FSS (mi/h)	40	40						
Running Time, TR (s)	17.3	10.4						
Other delay, (s)	0.0	0.0						
Delay Computation								
Uniform delay, d1 (s)	47.1	44.6	5.4	5.4	5.4	5.4	5.4	5.4
Incremental delay adj, k	0.11	0.42	0.50	0.50	0.50	0.50	0.50	0.50
Upstream filtering adj factor, I	1.000	0.926						
Incremental delay, d2 (s)	0.8	15.9	1.4					
Initial queue delay, d3 (s)	0	0						
Progression adj factor, PF	0.933	0.861	0.256	0.256	0.256	0.256	0.256	0.256
Control delay, d (s)	44.8	54.3						
Segment LOS Determination								
Travel time, ST (s)	62.0	64.6						
Travel speed, SA (mi/h)	8.7	5.0						
Segment LOS	F	F						
Urban Street LOS Determination								
Total travel time (s)	126.7							
Total length (mi)	0.24							
Total travel speed, SA (mi/h)	6.8							
Total urban street LOS	F							

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URBAN STREET WORKSHEET #1								
General Information				Site Information				
Analyst	USAI			Urban Street	VISTA WAY/COLLEGE TO 78WB RAMP			
Agency/Co.	USAI			Direction of Travel	West-bound			
Date Performed	8/23/2012			Jurisdiction	OCEANSIDE			
Time Period	AM PEAK HOUR			Analysis Year	2030 ALT-1/NO PROJECT			
Project Description:								
Input Parameters								
Analysis Period(h) T = 0.25	Segments							
	1	2	3	4	5	6	7	8
Cycle length, C (s)	100.0	100.0						
Eff. green to cycle ratio, g/C	0.260	0.206						
v/c ratio for lane group, X	0.440	0.532						
Cap of lane group, c (veh/h)	898	647						
Pct Veh on Grn., PVG								
Arrival type, AT	5	5						
Unit Extension, UE (sec)	3.0	3.0						
Length of segment, L (mi)	0.09	0.09						
Initial Queue, Qb (veh)	0	0						
Urban street class, SC	2	2						
Free-flow speed, FSS (mi/h)	40	40						
Running Time, TR (s)	10.4	10.4						
Other delay, (s)	0.0	0.0						
Delay Computation								
Uniform delay, d1 (s)	30.9	35.4	5.4	5.4	5.4	5.4	5.4	5.4
Incremental delay adj, k	0.11	0.13	0.50	0.50	0.50	0.50	0.50	0.50
Upstream filtering adj factor, I	1.000	0.899						
Incremental delay, d2 (s)	0.3	0.8	3.7					
Initial queue delay, d3 (s)	0	0						
Progression adj factor, PF	0.766	0.827	0.256	0.256	0.256	0.256	0.256	0.256
Control delay, d (s)	24.0	30.0						
Segment LOS Determination								
Travel time, ST (s)	34.4	40.4						
Travel speed, SA (mi/h)	9.4	8.0						
Segment LOS	F	F						
Urban Street LOS Determination								
Total travel time (s)	74.8							
Total length (mi)	0.18							
Total travel speed, SA (mi/h)	8.7							
Total urban street LOS	F							

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URBAN STREET WORKSHEET #1								
General Information				Site Information				
Analyst	USAI			Urban Street	VISTA WAY/COLLEGE TO 78WB RAMP			
Agency/Co.	USAI			Direction of Travel	West-bound			
Date Performed	8/23/2012			Jurisdiction	OCEANSIDE			
Time Period	AM PEAK HOUR			Analysis Year	2030 ALT-1/WITH PROJECT			
Project Description:								
Input Parameters								
Analysis Period(h) T = 0.25	Segments							
	1	2	3	4	5	6	7	8
Cycle length, C (s)	100.0	100.0						
Eff. green to cycle ratio, g/C	0.260	0.206						
v/c ratio for lane group, X	0.444	0.532						
Cap of lane group, c (veh/h)	899	647						
Pct Veh on Grn., PVG								
Arrival type, AT	5	5						
Unit Extension, UE (sec)	3.0	3.0						
Length of segment, L (mi)	0.09	0.09						
Initial Queue, Qb (veh)	0	0						
Urban street class, SC	2	2						
Free-flow speed, FSS (mi/h)	40	40						
Running Time, TR (s)	10.4	10.4						
Other delay, (s)	0.0	0.0						
Delay Computation								
Uniform delay, d1 (s)	31.0	35.4	5.4	5.4	5.4	5.4	5.4	5.4
Incremental delay adj, k	0.11	0.13	0.50	0.50	0.50	0.50	0.50	0.50
Upstream filtering adj factor, I	1.000	0.897						
Incremental delay, d2 (s)	0.4	0.8	3.7					
Initial queue delay, d3 (s)	0	0						
Progression adj factor, PF	0.766	0.827	0.256	0.256	0.256	0.256	0.256	0.256
Control delay, d (s)	24.0	30.0						
Segment LOS Determination								
Travel time, ST (s)	34.4	40.4						
Travel speed, SA (mi/h)	9.4	8.0						
Segment LOS	F	F						
Urban Street LOS Determination								
Total travel time (s)	74.8							
Total length (mi)	0.18							
Total travel speed, SA (mi/h)	8.7							
Total urban street LOS	F							

URBAN STREET WORKSHEET #1								
General Information				Site Information				
Analyst	USAI			Urban Street	VISTA WAY/COLLEGE TO 78WB RAMP			
Agency/Co.	USAI			Direction of Travel	West-bound			
Date Performed	8/23/2012			Jurisdiction	OCEANSIDE			
Time Period	PM PEAK HOUR			Analysis Year	2030 ALT-1/NO PROJECT			
Project Description:								
Input Parameters								
Analysis Period(h) T = 0.25	Segments							
	1	2	3	4	5	6	7	8
Cycle length, C (s)	110.0	110.0						
Eff. green to cycle ratio, g/C	0.300	0.287						
v/c ratio for lane group, X	0.474	0.736						
Cap of lane group, c (veh/h)	1043	923						
Pct Veh on Grn., PVG								
Arrival type, AT	5	5						
Unit Extension, UE (sec)	3.0	3.0						
Length of segment, L (mi)	0.09	0.09						
Initial Queue, Qb (veh)	0	0						
Urban street class, SC	2	2						
Free-flow speed, FSS (mi/h)	40	40						
Running Time, TR (s)	10.4	10.4						
Other delay, (s)	0.0	0.0						
Delay Computation								
Uniform delay, d1 (s)	31.4	35.4	5.4	5.4	5.4	5.4	5.4	5.4
Incremental delay adj, k	0.11	0.29	0.50	0.50	0.50	0.50	0.50	0.50
Upstream filtering adj factor, I	1.000	0.877						
Incremental delay, d2 (s)	0.3	2.7	2.7					
Initial queue delay, d3 (s)	0	0						
Progression adj factor, PF	0.714	0.731	0.256	0.256	0.256	0.256	0.256	0.256
Control delay, d (s)	22.8	28.6						
Segment LOS Determination								
Travel time, ST (s)	33.1	39.0						
Travel speed, SA (mi/h)	9.8	8.3						
Segment LOS	F	F						
Urban Street LOS Determination								
Total travel time (s)	72.1							
Total length (mi)	0.18							
Total travel speed, SA (mi/h)	9.0							
Total urban street LOS	F							

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URBAN STREET WORKSHEET #1								
General Information				Site Information				
Analyst	USAI			Urban Street	VISTA WAY/COLLEGE TO 78WB RAMP			
Agency/Co.	USAI			Direction of Travel	West-bound			
Date Performed	8/23/2012			Jurisdiction	OCEANSIDE			
Time Period	PM PEAK HOUR			Analysis Year	2030 ALT-1/WITH PROJECT			
Project Description:								
Input Parameters								
Analysis Period(h) T = 0.25	Segments							
	1	2	3	4	5	6	7	8
Cycle length, C (s)	110.0	110.0						
Eff. green to cycle ratio, g/C	0.300	0.287						
v/c ratio for lane group, X	0.487	0.736						
Cap of lane group, c (veh/h)	1043	923						
Pct Veh on Grn., PVG								
Arrival type, AT	5	5						
Unit Extension, UE (sec)	3.0	3.0						
Length of segment, L (mi)	0.09	0.09						
Initial Queue, Qb (veh)	0	0						
Urban street class, SC	2	2						
Free-flow speed, FSS (mi/h)	40	40						
Running Time, TR (s)	10.4	10.4						
Other delay, (s)	0.0	0.0						
Delay Computation								
Uniform delay, d1 (s)	31.6	35.4	5.4	5.4	5.4	5.4	5.4	5.4
Incremental delay adj, k	0.11	0.29	0.50	0.50	0.50	0.50	0.50	0.50
Upstream filtering adj factor, I	1.000	0.868						
Incremental delay, d2 (s)	0.4	2.7	2.7					
Initial queue delay, d3 (s)	0	0						
Progression adj factor, PF	0.714	0.731	0.256	0.256	0.256	0.256	0.256	0.256
Control delay, d (s)	22.9	28.6						
Segment LOS Determination								
Travel time, ST (s)	33.2	39.0						
Travel speed, SA (mi/h)	9.7	8.3						
Segment LOS	F	F						
Urban Street LOS Determination								
Total travel time (s)	72.2							
Total length (mi)	0.18							
Total travel speed, SA (mi/h)	9.0							
Total urban street LOS	F							

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APPENDIX E – ALTERNATIVE 2

- **SANDAG SERIES 11 COMBINED NORTH COUNTY MODEL FORECAST ADT VOLUME PLOT
(MCMILLIN -2 / 4-26-11)**
- **INTERSECTION LOS WORKSHEETS WITHOUT AND WITH PROJECT**
- **FAIR SHARE CALCULATIONS**
- **ARTERIAL ANALYSIS WORKSHEETS**

**SANDAG Series 11
Combined North County Model
2030 Highway Network
Daily Traffic Volumes**




City of CARLSBAD

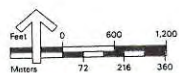
Model Run 04/26/11
McMillin 2 - With RDO, No Marron or Extension

Functional Classifications:

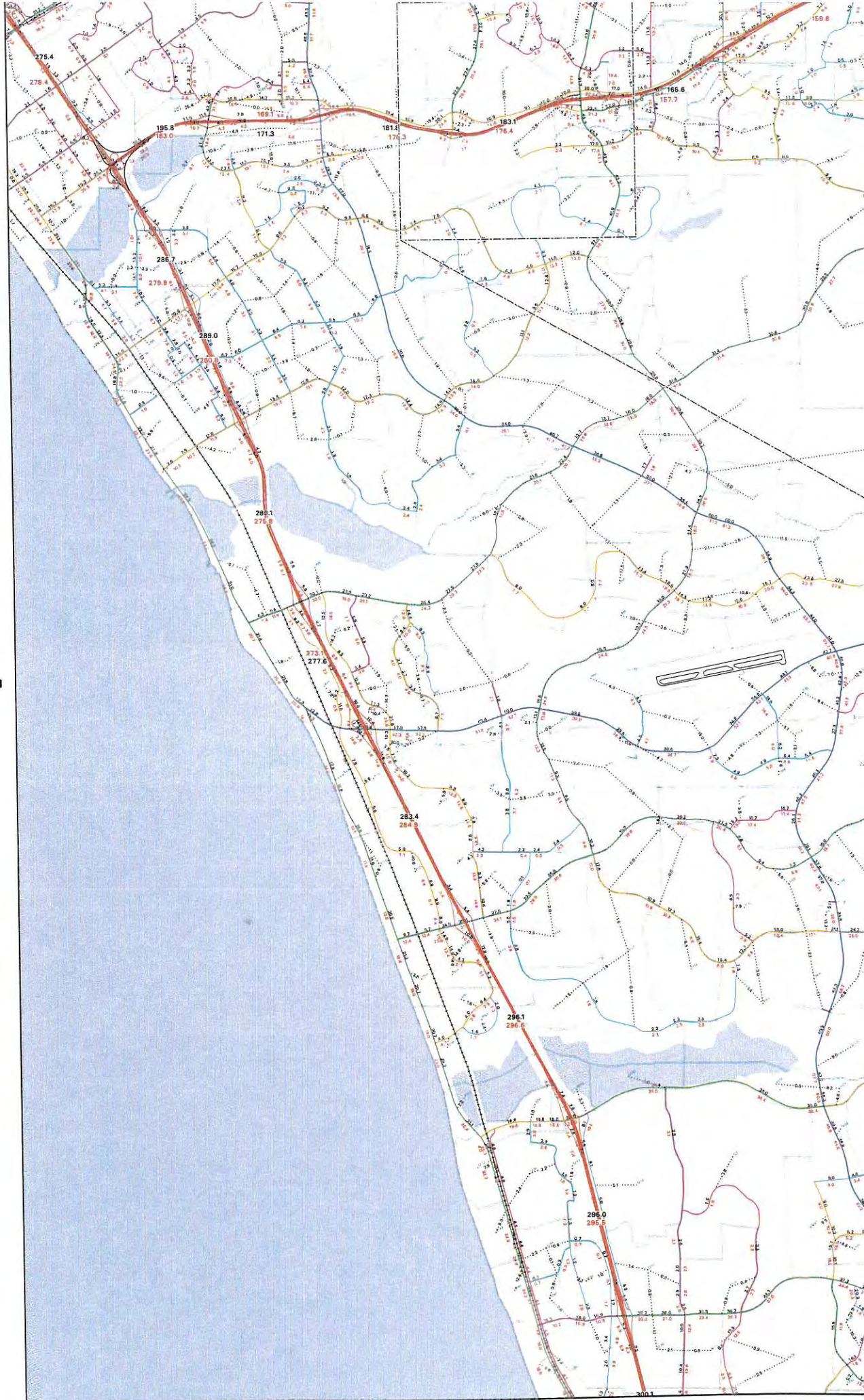
-  Freeway
-  Prime
-  Major
-  Collector
-  Local Collector
-  Rural Collector
-  Local
-  Freeway Connector
-  Ramp
-  Zone Connector
-  Light & Commuter Rail
-  Zone Boundary

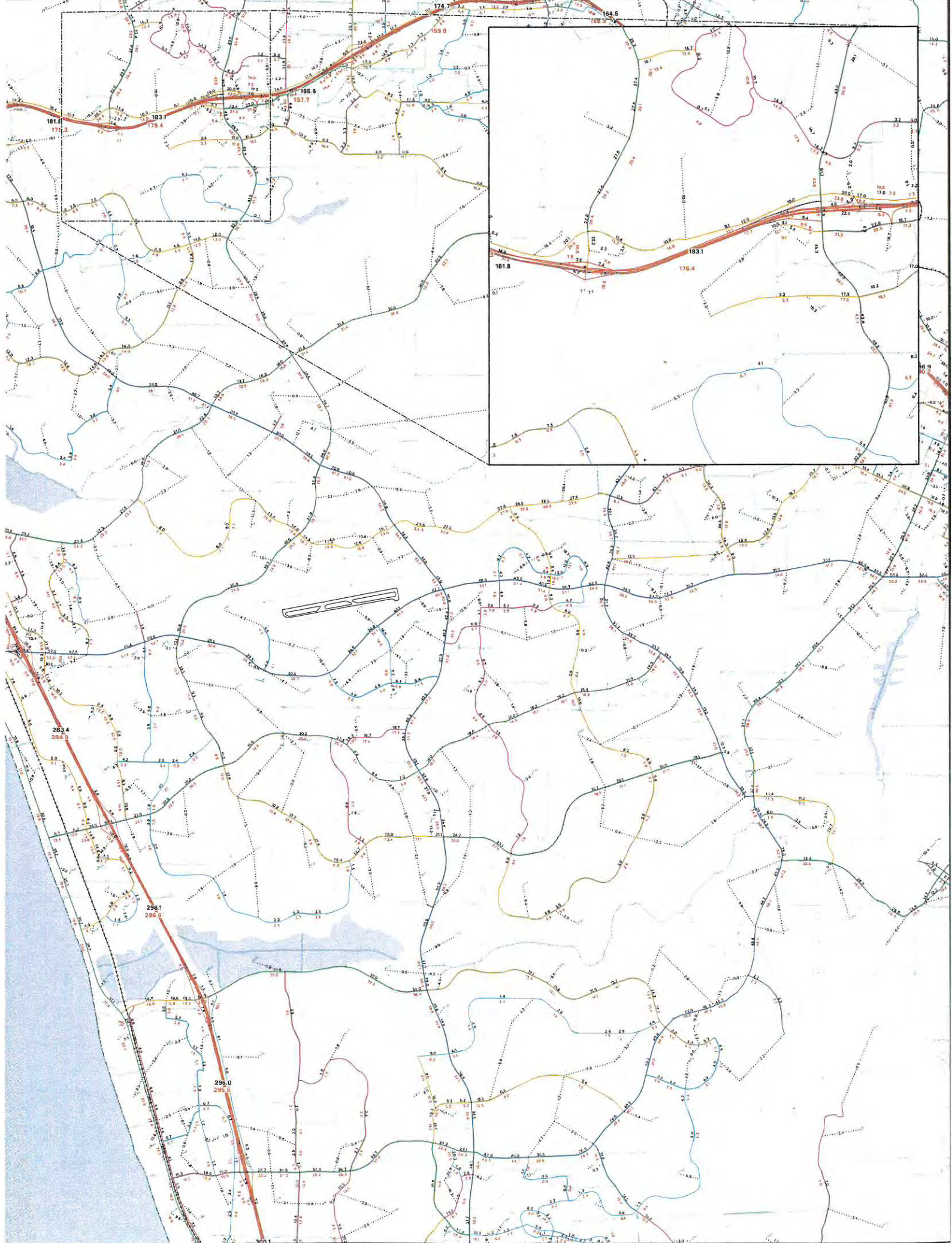
Forecasted Volumes:

-  Adjusted Volume
-  Unadjusted Volume
-  Traffic Analysis Zone



April 27, 2011





SHORT REPORT												
General Information							Site Information					
Analyst	USA/						EL CAMINO REAL@ VISTA					
Agency or Co.	USA/						WAY					
Date Performed	08/15/12						Area Type					
Time Period	AM PEAK						All other areas					
							Jurisdiction					
							OCEANSIDE-INT.#1					
							Analysis Year					
							BO-ALT-2/NO PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	2	1	2	2	0	2	3	0	2	3	0
Lane group	L	T	R	L	TR		L	TR		L	TR	
Volume (vph)	35	75	95	405	160	100	185	1010	360	160	1735	35
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Ext. eff. green	3.0	2.0	1.2	2.0	2.0		1.2	5.0		0.8	5.8	
Arrival type	3	3	3	3	3		5	5		5	5	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5	10	0
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0		0	0		0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Phasing	Excl. Left	WB Only	Thru & RT	04			Excl. Left	Thru & RT	07			08
Timing	G = 10.3	G = 13.5	G = 17.8	G =			G = 15.5	G = 48.6	G =			G =
	Y = 5.2	Y = 5.6	Y = 5.6	Y =			Y = 5.2	Y = 6.3	Y =			Y =
Duration of Analysis (hrs) = 0.25							Cycle Length C = 133.6					
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	38	82	103	440	283		201	1489		174	1924	
Lane group cap.	136	446	426	720	889		352	1836		342	1946	
v/c ratio	0.28	0.18	0.24	0.61	0.32		0.57	0.81		0.51	0.99	
Green ratio	0.08	0.13	0.28	0.21	0.27		0.10	0.38		0.10	0.38	
Unif. delay d1	58.1	52.3	37.4	47.9	39.1		57.1	37.2		57.1	40.8	
Delay factor k	0.11	0.11	0.11	0.20	0.11		0.17	0.35		0.12	0.49	
Increm. delay d2	1.1	0.2	0.3	1.5	0.2		2.2	2.9		1.3	17.7	
PF factor	1.000	1.000	1.000	1.000	1.000		0.924	0.594		0.926	0.583	
Control delay	59.3	52.5	37.7	49.4	39.3		55.0	25.0		54.1	41.5	
Lane group LOS	E	D	D	D	D		E	C		D	D	
Apprch. delay	46.8			45.4			28.5			42.6		
Approach LOS	D			D			C			D		
Intersec. delay	38.2			Intersection LOS						D		

SHORT REPORT												
General Information							Site Information					
Analyst	USA/						Intersection					
Agency or Co.	USA/						EL CAMINO REAL@ VISTA WAY					
Date Performed	08/15/12						Area Type					
Time Period	AM PEAK						All other areas					
							Jurisdiction					
							OCEANSIDE-INT.#1					
							Analysis Year					
							BO-ALT-2/WITH PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	2	1	2	2	0	2	3	0	2	3	0
Lane group	L	T	R	L	TR		L	TR		L	TR	
Volume (vph)	35	76	96	408	163	103	187	1012	362	161	1736	35
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Ext. eff. green	3.0	2.0	1.2	2.0	2.0		1.2	5.0		0.8	5.8	
Arrival type	3	3	3	3	3		5	5		5	5	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5	10	0
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0		0	0		0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Phasing	Excl. Left	WB Only	Thru & RT	04			Excl. Left	Thru & RT	07			08
Timing	G = 10.3	G = 13.5	G = 17.8	G =			G = 15.5	G = 48.6	G =			G =
	Y = 5.2	Y = 5.6	Y = 5.6	Y =			Y = 5.2	Y = 6.3	Y =			Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 133.6						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	38	83	104	443	289		203	1493		175	1925	
Lane group cap.	136	446	426	720	889		352	1835		342	1946	
v/c ratio	0.28	0.19	0.24	0.62	0.33		0.58	0.81		0.51	0.99	
Green ratio	0.08	0.13	0.28	0.21	0.27		0.10	0.38		0.10	0.38	
Unif. delay d1	58.1	52.3	37.4	47.9	39.1		57.2	37.3		57.1	40.8	
Delay factor k	0.11	0.11	0.11	0.20	0.11		0.17	0.35		0.12	0.49	
Increm. delay d2	1.1	0.2	0.3	1.6	0.2		2.3	2.9		1.3	17.8	
PF factor	1.000	1.000	1.000	1.000	1.000		0.924	0.594		0.926	0.583	
Control delay	59.3	52.5	37.7	49.5	39.4		55.2	25.1		54.2	41.6	
Lane group LOS	E	D	D	D	D		E	C		D	D	
Approch. delay	46.8			45.5			28.7			42.7		
Approach LOS	D			D			C			D		
Intersec. delay	38.3			Intersection LOS						D		

SHORT REPORT												
General Information						Site Information						
Analyst USAI						Intersection EL CAMINO REAL@ VISTA WAY						
Agency or Co. USAI						Area Type All other areas						
Date Performed 08/15/12						Jurisdiction OCEANSIDE-INT.#1						
Time Period PM PEAK						Analysis Year BO-ALT-2/NO PROJECT						
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	2	1	2	2	0	2	3	0	2	3	0
Lane group	L	T	R	L	TR		L	TR		L	TR	
Volume (vph)	225	315	400	330	290	180	475	1855	465	180	1475	95
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Ext. eff. green	3.0	2.0	1.2	2.0	2.0		1.2	5.0		0.8	5.8	
Arrival type	3	3	3	3	3		5	5		5	5	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5	10	0
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0		0	0		0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Phasing	Excl. Left	Thru & RT	03		04		Excl. Left	NB Only	Thru & RT	08		
Timing	G = 16.0	G = 22.3	G =		G =		G = 12.2	G = 12.8	G = 41.7	G =		
	Y = 5.2	Y = 5.6	Y =		Y =		Y = 5.2	Y = 6.3	Y = 6.3	Y =		
Duration of Analysis (hrs) = 0.25						Cycle Length C = 133.6						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	245	342	435	359	511		516	2521		196	1706	
Lane group cap.	212	566	650	386	526		731	2304		257	1672	
v/c ratio	1.16	0.60	0.67	0.93	0.97		0.71	1.09		0.76	1.02	
Green ratio	0.12	0.16	0.42	0.11	0.16		0.21	0.47		0.07	0.33	
Unif. delay d1	58.8	52.2	31.1	58.8	55.8		48.7	35.4		60.6	44.6	
Delay factor k	0.50	0.19	0.24	0.45	0.48		0.27	0.50		0.31	0.50	
Increm. delay d2	110.1	1.8	2.7	28.8	31.9		3.1	50.1		12.7	27.3	
PF factor	1.000	1.000	1.000	1.000	1.000		0.820	0.409		0.946	0.667	
Control delay	168.9	54.1	33.8	87.6	87.8		43.1	64.5		70.0	57.0	
Lane group LOS	F	D	C	F	F		D	E		E	E	
Apprch. delay	73.0			87.7			60.9			58.3		
Approach LOS	E			F			E			E		
Intersec. delay	65.4			Intersection LOS						E		

SHORT REPORT													
General Information							Site Information						
Analyst	USAI						Intersection						EL CAMINO REAL@ VISTA WAY
Agency or Co.	USAI						Area Type						All other areas
Date Performed	08/15/12						Jurisdiction						OCEANSIDE-INT.#1
Time Period	PM PEAK						Analysis Year						BO-ALT-2/WITH PROJECT
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	1	2	1	2	2	0	2	3	0	2	3	0	
Lane group	L	T	R	L	TR		L	TR		L	TR		
Volume (vph)	225	318	403	331	291	181	476	1856	466	183	1478	95	
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2	
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0		
Ext. eff. green	3.0	2.0	1.2	2.0	2.0		1.2	5.0		0.8	5.8		
Arrival type	3	3	3	3	3		5	5		5	5		
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0		
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5	10	0	
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0	0	0	0		0	0		0	0		
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0		
Phasing	Excl. Left	Thru & RT	03		04		Excl. Left	NB Only	Thru & RT	08			
Timing	G = 16.0	G = 22.3	G =		G =		G = 12.2	G = 12.8	G = 41.7	G =			
	Y = 5.2	Y = 5.6	Y =		Y =		Y = 5.2	Y = 6.3	Y = 6.3	Y =			
Duration of Analysis (hrs) = 0.25						Cycle Length C = 133.6							
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	245	346	438	360	513		517	2524		199	1710		
Lane group cap.	212	566	650	386	526		731	2304		257	1672		
v/c ratio	1.16	0.61	0.67	0.93	0.98		0.71	1.10		0.77	1.02		
Green ratio	0.12	0.16	0.42	0.11	0.16		0.21	0.47		0.07	0.33		
Unif. delay d1	58.8	52.3	31.2	58.8	55.9		48.7	35.4		60.7	44.6		
Delay factor k	0.50	0.20	0.25	0.45	0.48		0.27	0.50		0.32	0.50		
Increm. delay d2	110.1	1.9	2.8	29.4	32.8		3.2	50.6		13.7	28.0		
PF factor	1.000	1.000	1.000	1.000	1.000		0.820	0.409		0.946	0.667		
Control delay	168.9	54.2	34.0	88.2	88.7		43.1	65.0		71.1	57.7		
Lane group LOS	F	D	C	F	F		D	E		E	E		
Apprch. delay	72.9			88.5			61.3			59.1			
Approach LOS	E			F			E			E			
Intersec. delay	65.9			Intersection LOS						E			

TABLE 9-3-A MIT. ADD NB RTOLANE

SHORT REPORT

General Information						Site Information					
Analyst	USAI					Intersection	EL CAMINO REAL@ VISTA WAY				
Agency or Co.	USAI					Area Type	All other areas				
Date Performed	08/15/12					Jurisdiction	OCEANSIDE-INT.#1/WITH MIT.				
Time Period	AM PEAK					Analysis Year	BO-ALT-2/NO PROJECT				

Volume and Timing Input														
			EB			WB			NB			SB		
			LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes			1	2	1	2	2	0	2	3	1	2	3	0
Lane group			L	T	R	L	TR		L	T	R	L	TR	
Volume (vph)			35	75	95	405	160	100	185	1010	360	160	1735	35
% Heavy veh			2	2	2	2	2	2	2	2	2	2	2	2
PHF			0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Actuated (P/A)			A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time			3.0	3.0	3.0	3.0	3.0		3.0	3.0	2.0	3.0	3.0	
Ext. eff. green			3.0	2.0	1.2	2.0	2.0		1.2	5.0	2.0	0.8	5.8	
Arrival type			3	3	3	3	3		5	5	5	5	5	
Unit Extension			3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume			5	10	0	5	10	0	5	10	0	5	10	0
Lane Width			12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking			N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr														
Bus stops/hr			0	0	0	0	0		0	0	0	0	0	
Unit Extension			3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Phasing	Excl. Left	WB Only	Thru & RT		04		Excl. Left	Thru & RT		07		08		
Timing	G = 10.3	G = 13.5	G = 17.8		G =		G = 15.5	G = 48.6		G =		G =		
	Y = 5.2	Y = 5.6	Y = 5.6		Y =		Y = 5.2	Y = 6.3		Y =		Y =		
Duration of Analysis (hrs) = 0.25									Cycle Length C = 133.6					

Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	38	82	103	440	283		201	1098	391	174	1924	
Lane group cap.	136	446	426	720	889		352	1922	563	342	1946	
v/c ratio	0.28	0.18	0.24	0.61	0.32		0.57	0.57	0.69	0.51	0.99	
Green ratio	0.08	0.13	0.28	0.21	0.27		0.10	0.38	0.36	0.10	0.38	
Unif. delay d1	58.1	52.3	37.4	47.9	39.1		57.1	32.9	36.2	57.1	40.8	
Delay factor k	0.11	0.11	0.11	0.20	0.11		0.17	0.17	0.26	0.12	0.49	
Increm. delay d2	1.1	0.2	0.3	1.5	0.2		2.2	0.4	3.7	1.3	17.7	
PF factor	1.000	1.000	1.000	1.000	1.000		0.924	0.594	0.619	0.926	0.583	
Control delay	59.3	52.5	37.7	49.4	39.3		55.0	19.9	26.1	54.1	41.5	
Lane group LOS	E	D	D	D	D		E	B	C	D	D	
Apprch. delay	46.8			45.4			25.5			42.6		
Approach LOS	D			D			C			D		
Intersec. delay	37.1			Intersection LOS						D		

TABLE 9-3A MIT. ADD NB RT LANE

SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	EL CAMINO REAL@ VISTA WAY					
Agency or Co.	USAI					Area Type	All other areas					
Date Performed	08/15/12					Jurisdiction	OCEANSIDE-INT.#1/WITH MIT.					
Time Period	AM PEAK					Analysis Year	BO-ALT-2/WITH PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	2	1	2	2	0	2	3	1	2	3	0
Lane group	L	T	R	L	TR		L	T	R	L	TR	
Volume (vph)	35	76	96	408	163	103	187	1012	362	161	1736	35
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	3.0	3.0	3.0	3.0	3.0		3.0	3.0	2.0	3.0	3.0	
Ext. eff. green	3.0	2.0	1.2	2.0	2.0		1.2	5.0	2.0	0.8	5.8	
Arrival type	3	3	3	3	3		5	5	5	5	5	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5	10	0
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0		0	0	0	0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Phasing	Excl. Left	WB Only	Thru & RT	04			Excl. Left	Thru & RT	07			08
Timing	G = 10.3	G = 13.5	G = 17.8	G =			G = 15.5	G = 48.6	G =			G =
	Y = 5.2	Y = 5.6	Y = 5.6	Y =			Y = 5.2	Y = 6.3	Y =			Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 133.6						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	38	83	104	443	289		203	1100	393	175	1925	
Lane group cap.	136	446	426	720	889		352	1922	563	342	1946	
v/c ratio	0.28	0.19	0.24	0.62	0.33		0.58	0.57	0.70	0.51	0.99	
Green ratio	0.08	0.13	0.28	0.21	0.27		0.10	0.38	0.36	0.10	0.38	
Unif. delay d1	58.1	52.3	37.4	47.9	39.1		57.2	32.9	36.2	57.1	40.8	
Delay factor k	0.11	0.11	0.11	0.20	0.11		0.17	0.17	0.26	0.12	0.49	
Increm. delay d2	1.1	0.2	0.3	1.6	0.2		2.3	0.4	3.8	1.3	17.8	
PF factor	1.000	1.000	1.000	1.000	1.000		0.924	0.594	0.619	0.926	0.583	
Control delay	59.3	52.5	37.7	49.5	39.4		55.2	20.0	26.2	54.2	41.6	
Lane group LOS	E	D	D	D	D		E	B	C	D	D	
Apprch. delay	46.8			45.5			25.6			42.7		
Approach LOS	D			D			C			D		
Intersec. delay	37.2			Intersection LOS						D		

TABLE 9-3-A MIT: ADD NB RTD LANE

SHORT REPORT												
General Information							Site Information					
Analyst	USAI						Intersection EL CAMINO REAL@ VISTA WAY					
Agency or Co.	USAI						Area Type All other areas					
Date Performed	08/15/12						Jurisdiction OCEANSIDE-INT.#1/WITH MIT.					
Time Period	PM PEAK						Analysis Year BO-ALT-2/NO PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	2	1	2	2	0	2	3	1	2	3	0
Lane group	L	T	R	L	TR		L	T	R	L	TR	
Volume (vph)	225	315	400	330	290	180	475	1855	465	180	1475	95
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	3.0	3.0	3.0	3.0	3.0		3.0	3.0	2.0	3.0	3.0	
Ext. eff. green	3.0	2.0	1.2	2.0	2.0		1.2	5.0	2.0	0.8	5.8	
Arrival type	3	3	3	3	3		5	5	5	5	5	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5	10	0
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0		0	0	0	0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Phasing	Excl. Left	Thru & RT	03		04		Excl. Left	NB Only	Thru & RT	08		
Timing	G = 16.0	G = 22.3	G =		G =		G = 12.2	G = 12.8	G = 41.7	G =		
	Y = 5.2	Y = 5.6	Y =		Y =		Y = 5.2	Y = 6.3	Y = 6.3	Y =		
Duration of Analysis (hrs) = 0.25							Cycle Length C = 133.6					
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	245	342	435	359	511		516	2016	505	196	1706	
Lane group cap.	212	566	650	386	526		731	2385	706	257	1672	
v/c ratio	1.16	0.60	0.67	0.93	0.97		0.71	0.85	0.72	0.76	1.02	
Green ratio	0.12	0.16	0.42	0.11	0.16		0.21	0.47	0.46	0.07	0.33	
Unif. delay d1	58.8	52.2	31.1	58.8	55.8		48.7	31.1	29.4	60.6	44.6	
Delay factor k	0.50	0.19	0.24	0.45	0.48		0.27	0.38	0.28	0.31	0.50	
Increm. delay d2	110.1	1.8	2.7	28.8	31.9		3.1	3.0	3.5	12.7	27.3	
PF factor	1.000	1.000	1.000	1.000	1.000		0.820	0.409	0.443	0.946	0.667	
Control delay	168.9	54.1	33.8	87.6	87.8		43.1	15.7	16.5	70.0	57.0	
Lane group LOS	F	D	C	F	F		D	B	B	E	E	
Apprch. delay	73.0			87.7			20.5			58.3		
Approach LOS	E			F			C			E		
Intersec. delay	47.4			Intersection LOS						D		

TABLE 9-3-A

MIT AND NB RTD LANE

SHORT REPORT												
General Information							Site Information					
Analyst	USAI						Intersection EL CAMINO REAL@ VISTA WAY					
Agency or Co.	USAI						Area Type All other areas					
Date Performed	08/15/12						Jurisdiction OCEANSIDE-INT.#1/WITH MIT.					
Time Period	PM PEAK						Analysis Year BO-ALT-2/WITH PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	2	1	2	2	0	2	3	1	2	3	0
Lane group	L	T	R	L	TR		L	T	R	L	TR	
Volume (vph)	225	318	403	331	291	181	476	1856	466	183	1478	95
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	3.0	3.0	3.0	3.0	3.0		3.0	3.0	2.0	3.0	3.0	
Ext. eff. green	3.0	2.0	1.2	2.0	2.0		1.2	5.0	2.0	0.8	5.8	
Arrival type	3	3	3	3	3		5	5	5	5	5	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5	10	0
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0		0	0	0	0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Phasing	Excl. Left	Thru & RT	03		04		Excl. Left	NB Only	Thru & RT	08		
Timing	G = 16.0	G = 22.3	G =		G =		G = 12.2	G = 12.8	G = 41.7	G =		
	Y = 5.2	Y = 5.6	Y =		Y =		Y = 5.2	Y = 6.3	Y = 6.3	Y =		
Duration of Analysis (hrs) = 0.25							Cycle Length C = 133.6					
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	245	346	438	360	513		517	2017	507	199	1710	
Lane group cap.	212	566	650	386	526		731	2385	706	257	1672	
v/c ratio	1.16	0.61	0.67	0.93	0.98		0.71	0.85	0.72	0.77	1.02	
Green ratio	0.12	0.16	0.42	0.11	0.16		0.21	0.47	0.46	0.07	0.33	
Unif. delay d1	58.8	52.3	31.2	58.8	55.9		48.7	31.1	29.5	60.7	44.6	
Delay factor k	0.50	0.20	0.25	0.45	0.48		0.27	0.38	0.28	0.32	0.50	
Increm. delay d2	110.1	1.9	2.8	29.4	32.8		3.2	3.0	3.5	13.7	28.0	
PF factor	1.000	1.000	1.000	1.000	1.000		0.820	0.409	0.443	0.946	0.667	
Control delay	168.9	54.2	34.0	88.2	88.7		43.1	15.7	16.6	71.1	57.7	
Lane group LOS	F	D	C	F	F		D	B	B	E	E	
Apprch. delay	72.9			88.5			20.5			59.1		
Approach LOS	E			F			C			E		
Intersec. delay	47.8			Intersection LOS						D		

SHORT REPORT												
General Information						Site Information						
Analyst Agency or Co. Date Performed Time Period						Intersection Area Type Jurisdiction Analysis Year						
USA/ USA/ 08/15/12 AM PEAK						EL CAMINO REAL@ SR- 78WB RAMPS All other areas OCEANSIDE-INT.#2 BO.ALT.-2/NO PROJECT						
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	0	0	1	1	1	2	3	0	0	3	1
Lane group				L	LTR	R	L	T			T	R
Volume (vph)				715	5	580	140	975			1790	450
% Heavy veh				2	2	2	2	2			2	2
PHF				0.92	0.92	0.92	0.92	0.92			0.92	0.92
Actuated (P/A)				A	A	A	A	A			A	A
Startup lost time				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Ext. eff. green				2.0	2.0	2.0	2.0	2.0			2.0	2.0
Arrival type				3	3	3	5	5			5	5
Unit Extension				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Ped/Bike/RTOR Volume	10			10		75				10	5	250
Lane Width				12.0	12.0	12.0	12.0	12.0			12.0	12.0
Parking/Grade/Parking	N		N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr				0	0	0	0	0			0	0
Unit Extension				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Phasing	WB Only	02	03	04	NB Only	Thru & RT	07	08				
Timing	G = 31.0	G =	G =	G =	G = 13.7	G = 39.0	G =	G =				
	Y = 5.1	Y =	Y =	Y =	Y = 4.2	Y = 7	Y =	Y =				
Duration of Analysis (hrs) = 0.25				Cycle Length C = 100.0								
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate				482	465	384	152	1060			1946	217
Lane group cap.				531	513	475	436	2836			1928	588
v/c ratio				0.91	0.91	0.81	0.35	0.37			1.01	0.37
Green ratio				0.30	0.30	0.30	0.13	0.56			0.38	0.38
Unif. delay d1				33.7	33.7	32.3	39.9	12.3			31.0	22.4
Delay factor k				0.43	0.43	0.35	0.11	0.11			0.50	0.11
Increm. delay d2				19.4	19.8	10.0	0.5	0.1			22.8	0.4
PF factor				1.000	1.000	1.000	0.903	0.155			0.591	0.591
Control delay				53.1	53.4	42.4	36.5	2.0			41.1	13.6
Lane group LOS				D	D	D	D	A			D	B
Apprch. delay				50.1			6.3			38.4		
Approach LOS				D			A			D		
Intersec. delay	33.4			Intersection LOS						C		

SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	EL CAMINO REAL@ SR-78WB RAMPS					
Agency or Co.	USAI					Area Type	All other areas					
Date Performed	08/15/12					Jurisdiction	OCEANSIDE-INT.#2					
Time Period	AM PEAK					Analysis Year	BO.ALT.-2/WITH PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	0	0	1	1	1	2	3	0	0	3	1
Lane group				L	LTR	R	L	T			T	R
Volume (vph)				718	5	584	140	977			1795	450
% Heavy veh				2	2	2	2	2			2	2
PHF				0.92	0.92	0.92	0.92	0.92			0.92	0.92
Actuated (P/A)				A	A	A	A	A			A	A
Startup lost time				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Ext. eff. green				2.0	2.0	2.0	2.0	2.0			2.0	2.0
Arrival type				3	3	3	5	5			5	5
Unit Extension				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Ped/Bike/RTOR Volume	10			10		75				10	5	250
Lane Width				12.0	12.0	12.0	12.0	12.0			12.0	12.0
Parking/Grade/Parking	N		N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr				0	0	0	0	0			0	0
Unit Extension				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Phasing	WB Only	02	03	04	NB Only	Thru & RT	07	08				
Timing	G = 31.0	G =	G =	G =	G = 13.7	G = 39.0	G =	G =				
	Y = 5.1	Y =	Y =	Y =	Y = 4.2	Y = 7	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 100.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate				484	467	387	152	1062			1951	217
Lane group cap.				531	513	475	436	2836			1928	588
v/c ratio				0.91	0.91	0.81	0.35	0.37			1.01	0.37
Green ratio				0.30	0.30	0.30	0.13	0.56			0.38	0.38
Unif. delay d1				33.7	33.7	32.4	39.9	12.3			31.0	22.4
Delay factor k				0.43	0.43	0.36	0.11	0.11			0.50	0.11
Increm. delay d2				20.0	20.4	10.5	0.5	0.1			23.5	0.4
PF factor				1.000	1.000	1.000	0.903	0.155			0.591	0.591
Control delay				53.7	54.1	42.9	36.5	2.0			41.8	13.6
Lane group LOS				D	D	D	D	A			D	B
Apprch. delay				50.7			6.3			39.0		
Approach LOS				D			A			D		
Intersec. delay	33.9			Intersection LOS						C		

SHORT REPORT												
General Information						Site Information						
Analyst USA/ Agency or Co. USA/ Date Performed 08/15/12 Time Period PM PEAK						Intersection EL CAMINO REAL@ SR- 78WB RAMPS Area Type All other areas Jurisdiction OCEANSIDE-INT.#2 Analysis Year BO.ALT.-2/NO PROJECT						
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	0	0	1	1	1	2	3	0	0	3	1
Lane group				L	LTR	R	L	T			T	R
Volume (vph)				800	10	770	335	2025			1675	560
% Heavy veh				2	2	2	2	2			2	2
PHF				0.92	0.92	0.92	0.92	0.92			0.92	0.92
Actuated (P/A)				A	A	A	A	A			A	A
Startup lost time				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Ext. eff. green				2.0	2.0	2.0	2.0	2.0			2.0	2.0
Arrival type				3	3	3	5	5			5	5
Unit Extension				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Ped/Bike/RTOR Volume	10			10		0				10	5	0
Lane Width				12.0	12.0	12.0	12.0	12.0			12.0	12.0
Parking/Grade/Parking	N		N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr				0	0	0	0	0			0	0
Unit Extension				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Phasing	WB Only	02	03	04	NB Only	Thru & RT	07	08				
Timing	G = 31.0	G =	G =	G =	G = 13.7	G = 39.0	G =	G =				
	Y = 5.1	Y =	Y =	Y =	Y = 4.2	Y = 7	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 100.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate				609	573	536	364	2201			1821	609
Lane group cap.				531	503	475	436	2836			1928	588
v/c ratio				1.15	1.14	1.13	0.83	0.78			0.94	1.04
Green ratio				0.30	0.30	0.30	0.13	0.56			0.38	0.38
Unif. delay d1				35.0	35.0	35.0	42.6	17.2			30.0	31.0
Delay factor k				0.50	0.50	0.50	0.37	0.33			0.46	0.50
Increm. delay d2				86.4	84.4	81.4	13.2	1.4			10.3	46.7
PF factor				1.000	1.000	1.000	0.903	0.155			0.591	0.591
Control delay				121.4	119.4	116.4	51.7	4.1			28.0	65.0
Lane group LOS				F	F	F	D	A			C	E
Apprch. delay				119.2			10.8			37.3		
Approach LOS				F			B			D		
Intersec. delay	48.1			Intersection LOS						D		

SHORT REPORT												
General Information						Site Information						
Analyst USAI						Intersection EL CAMINO REAL@ SR-						
Agency or Co. USAI						78WB RAMPS						
Date Performed 08/15/12						Area Type All other areas						
Time Period PM PEAK						Jurisdiction OCEANSIDE-INT.#2						
						Analysis Year BO.ALT.-2/WITH PROJECT						
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	0	0	1	1	1	2	3	0	0	3	1
Lane group				L	LTR	R	L	T			T	R
Volume (vph)				802	10	772	335	2026			1682	560
% Heavy veh				2	2	2	2	2			2	2
PHF				0.92	0.92	0.92	0.92	0.92			0.92	0.92
Actuated (P/A)				A	A	A	A	A			A	A
Startup lost time				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Ext. eff. green				2.0	2.0	2.0	2.0	2.0			2.0	2.0
Arrival type				3	3	3	5	5			5	5
Unit Extension				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Ped/Bike/RTOR Volume	10			10		0				10	5	0
Lane Width				12.0	12.0	12.0	12.0	12.0			12.0	12.0
Parking/Grade/Parking	N		N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr				0	0	0	0	0			0	0
Unit Extension				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Phasing	WB Only	02	03	04	NB Only	Thru & RT	07	08				
Timing	G = 31.0	G =	G =	G =	G = 13.7	G = 39.0	G =	G =				
	Y = 5.1	Y =	Y =	Y =	Y = 4.2	Y = 7	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 100.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate				610	575	537	364	2202			1828	609
Lane group cap.				531	503	475	436	2836			1928	588
v/c ratio				1.15	1.14	1.13	0.83	0.78			0.95	1.04
Green ratio				0.30	0.30	0.30	0.13	0.56			0.38	0.38
Unif. delay d1				35.0	35.0	35.0	42.6	17.2			30.0	31.0
Delay factor k				0.50	0.50	0.50	0.37	0.33			0.46	0.50
Increm. delay d2				87.1	85.9	82.2	13.2	1.4			10.7	46.7
PF factor				1.000	1.000	1.000	0.903	0.155			0.591	0.591
Control delay				122.1	120.9	117.2	51.7	4.1			28.5	65.0
Lane group LOS				F	F	F	D	A			C	E
Apprch. delay				120.1			10.8			37.6		
Approach LOS				F			B			D		
Intersec. delay	48.5			Intersection LOS						D		

SHORT REPORT													
General Information						Site Information							
Analyst	USAI					Intersection	EL CAMINO REAL@ SR-78EB RAMPS						
Agency or Co.	USAI					Area Type	All other areas						
Date Performed	08/22/12					Jurisdiction	OCEANSIDE--INT#3						
Time Period	AM PEAK					Analysis Year	BO.ALT-2/NO PROJECT						
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	2	0	1	0	0	0	0	3	1	2	3	0	
Lane group	L		R					T	R	L	T		
Volume (vph)	340		170					775	550	620	1885		
% Heavy veh	2		2					2	2	2	2		
PHF	0.92		0.92					0.92	0.92	0.92	0.92		
Actuated (P/A)	A		A					A	A	A	A		
Startup lost time	3.0		3.0					3.0	3.0	3.0	3.0		
Ext. eff. green	2.0		2.0					2.0	2.0	2.0	2.0		
Arrival type	3		3					5	5	5	5		
Unit Extension	3.0		3.0					3.0	3.0	3.0	3.0		
Ped/Bike/RTOR Volume	5		0	5			5	10	0				
Lane Width	12.0		12.0					12.0	12.0	12.0	12.0		
Parking/Grade/Parking	N	0	N	N		N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0		0					0	0	0	0		
Unit Extension	3.0		3.0					3.0	3.0	3.0	3.0		
Phasing	EB Only	02	03	04	SB Only	Thru & RT	07	08					
Timing	G = 20.0	G =	G =	G =	G = 38.0	G = 50.2	G =	G =					
	Y = 5.1	Y =	Y =	Y =	Y = 4.7	Y = 7	Y =	Y =					
Duration of Analysis (hrs) = 0.25						Cycle Length C = 125.0							
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	370		185				842	598	674	2049			
Lane group cap.	522		241				1997	610	1017	3730			
v/c ratio	0.71		0.77				0.42	0.98	0.66	0.55			
Green ratio	0.15		0.15				0.39	0.39	0.30	0.74			
Unif. delay d1	50.4		50.9				27.6	37.4	38.5	7.4			
Delay factor k	0.27		0.32				0.11	0.48	0.24	0.15			
Increm. delay d2	4.4		13.9				0.1	31.4	1.6	0.2			
PF factor	1.000		1.000				0.567	0.567	0.720	0.189			
Control delay	54.8		64.8				15.8	52.6	29.4	1.6			
Lane group LOS	D		E				B	D	C	A			
Apprch. delay	58.1						31.1			8.4			
Approach LOS	E						C			A			
Intersec. delay	21.2			Intersection LOS						C			

SHORT REPORT												
General Information						Site Information						
Analyst USAI						Intersection EL CAMINO REAL@ SR-78EB RAMPS						
Agency or Co. USAI						Area Type All other areas						
Date Performed 08/22/12						Jurisdiction OCEANSIDE--INT#3						
Time Period AM PEAK						Analysis Year BO.ALT-2/WITH PROJECT						
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	0	1	0	0	0	0	3	1	2	3	0
Lane group	L		R					T	R	L	T	
Volume (vph)	340		170					777	553	622	1891	
% Heavy veh	2		2					2	2	2	2	
PHF	0.92		0.92					0.92	0.92	0.92	0.92	
Actuated (P/A)	A		A					A	A	A	A	
Startup lost time	3.0		3.0					3.0	3.0	3.0	3.0	
Ext. eff. green	2.0		2.0					2.0	2.0	2.0	2.0	
Arrival type	3		3					5	5	5	5	
Unit Extension	3.0		3.0					3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	5		0	5			5	10	0			
Lane Width	12.0		12.0					12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N		N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0		0					0	0	0	0	
Unit Extension	3.0		3.0					3.0	3.0	3.0	3.0	
Phasing	EB Only	02	03	04	SB Only	Thru & RT	07	08				
Timing	G = 20.0	G =	G =	G =	G = 38.0	G = 50.2	G =	G =				
	Y = 5.1	Y =	Y =	Y =	Y = 4.7	Y = 7	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 125.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	370		185				845	601	676	2055		
Lane group cap.	522		241				1997	610	1017	3730		
v/c ratio	0.71		0.77				0.42	0.99	0.66	0.55		
Green ratio	0.15		0.15				0.39	0.39	0.30	0.74		
Unif. delay d1	50.4		50.9				27.6	37.5	38.6	7.4		
Delay factor k	0.27		0.32				0.11	0.49	0.24	0.15		
Increm. delay d2	4.4		13.9				0.1	32.6	1.7	0.2		
PF factor	1.000		1.000				0.567	0.567	0.720	0.189		
Control delay	54.8		64.8				15.8	53.9	29.4	1.6		
Lane group LOS	D		E				B	D	C	A		
Apprch. delay	58.1						31.6			8.5		
Approach LOS	E						C			A		
Intersec. delay	21.4			Intersection LOS						C		

SHORT REPORT												
General Information						Site Information						
Analyst Agency or Co. Date Performed Time Period						Intersection Area Type Jurisdiction Analysis Year						
USA/ USA/ 08/17/12 PM PEAK						EL CAMINO REAL@ SR- 78EB RAMPS All other areas OCEANSIDE-INT#3 BO.ALT-2/NO PROJECT						
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	0	1	0	0	0	0	3	1	2	3	0
Lane group	L		R					T	R	L	T	
Volume (vph)	650		210					1710	880	665	1810	
% Heavy veh	2		2					2	2	2	2	
PHF	0.92		0.92					0.92	0.92	0.92	0.92	
Actuated (P/A)	A		A					A	A	A	A	
Startup lost time	3.0		3.0					3.0	3.0	3.0	3.0	
Ext. eff. green	2.0		2.0					2.0	2.0	2.0	2.0	
Arrival type	3		3					5	5	5	5	
Unit Extension	3.0		3.0					3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	5		0	5			5	10	80			
Lane Width	12.0		12.0					12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N		N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0		0					0	0	0	0	
Unit Extension	3.0		3.0					3.0	3.0	3.0	3.0	
Phasing	EB Only	02	03	04	SB Only	Thru & RT	07	08				
Timing	G = 23.0	G =	G =	G =	G = 31.0	G = 54.2	G =	G =				
	Y = 5.1	Y =	Y =	Y =	Y = 4.7	Y = 7	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 125.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	707		228					1859	870	723	1967	
Lane group cap.	605		279					2159	660	825	3609	
v/c ratio	1.17		0.82					0.86	1.32	0.88	0.55	
Green ratio	0.18		0.18					0.43	0.43	0.24	0.71	
Unif. delay d1	51.5		49.6					32.5	35.9	45.7	8.5	
Delay factor k	0.50		0.36					0.39	0.50	0.40	0.15	
Increm. delay d2	92.7		17.1					3.8	153.7	10.5	0.2	
PF factor	1.000		1.000					0.506	0.506	0.789	0.173	
Control delay	144.2		66.6					20.3	171.9	46.6	1.6	
Lane group LOS	F		E					C	F	D	A	
Apprch. delay	125.3						68.6			13.7		
Approach LOS	F						E			B		
Intersec. delay	53.7			Intersection LOS						D		

SHORT REPORT													
General Information						Site Information							
Analyst	USAI					Intersection	EL CAMINO REAL@ SR-78EB RAMPS						
Agency or Co.	USAI					Area Type	All other areas						
Date Performed	08/17/12					Jurisdiction	OCEANSIDE-INT#3						
Time Period	PM PEAK					Analysis Year	BO.ALT-2/WITH PROJECT						
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	2	0	1	0	0	0	0	3	1	2	3	0	
Lane group	L		R					T	R	L	T		
Volume (vph)	650		210					1711	886	670	1813		
% Heavy veh	2		2					2	2	2	2		
PHF	0.92		0.92					0.92	0.92	0.92	0.92		
Actuated (P/A)	A		A					A	A	A	A		
Startup lost time	3.0		3.0					3.0	3.0	3.0	3.0		
Ext. eff. green	2.0		2.0					2.0	2.0	2.0	2.0		
Arrival type	3		3					5	5	5	5		
Unit Extension	3.0		3.0					3.0	3.0	3.0	3.0		
Ped/Bike/RTOR Volume	5		0	5			5	10	80				
Lane Width	12.0		12.0					12.0	12.0	12.0	12.0		
Parking/Grade/Parking	N	0	N	N		N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0		0					0	0	0	0		
Unit Extension	3.0		3.0					3.0	3.0	3.0	3.0		
Phasing	EB Only	02	03	04	SB Only	Thru & RT	07	08					
Timing	G = 23.0	G =	G =	G =	G = 31.0	G = 54.2	G =	G =					
	Y = 5.1	Y =	Y =	Y =	Y = 4.7	Y = 7	Y =	Y =					
Duration of Analysis (hrs) = 0.25						Cycle Length C = 125.0							
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	707		228					1860	876	728	1971		
Lane group cap.	605		279					2159	660	825	3609		
v/c ratio	1.17		0.82					0.86	1.33	0.88	0.55		
Green ratio	0.18		0.18					0.43	0.43	0.24	0.71		
Unif. delay d1	51.5		49.6					32.6	35.9	45.8	8.5		
Delay factor k	0.50		0.36					0.39	0.50	0.41	0.15		
Increm. delay d2	92.7		17.1					3.8	157.6	11.1	0.2		
PF factor	1.000		1.000					0.506	0.506	0.789	0.173		
Control delay	144.2		66.6					20.3	175.8	47.2	1.7		
Lane group LOS	F		E					C	F	D	A		
Apprch. delay	125.3						70.1			13.9			
Approach LOS	F						E			B			
Intersec. delay	54.4			Intersection LOS						D			

SHORT REPORT												
General Information							Site Information					
Analyst	USAI						Intersection EL CAMINO REAL@ PLAZA DR.					
Agency or Co.	USAI						Area Type All other areas					
Date Performed	05/01/12						Jurisdiction CARLSBAD					
Time Period	AM PEAK						Analysis Year BO.ALT.-2/NO PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	1	1	1	1	1	2	3	0	2	3	0
Lane group	L	LT	R	L	LT	R	L	TR		L	TR	
Volume (vph)	20	5	5	45	10	90	30	1215	45	240	1510	95
% Heavy veh	1	1	1	1	1	1	1	2	1	1	2	1
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Arrival type	4	4	4	4	4	4	5	5		5	5	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	5	5	0	5	5	0	5	5	0	5	5	0
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0	0	0	0		0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Phasing	EB Only	WB Only	03	04	Excl. Left	Thru & RT	07	08				
Timing	G = 10.0	G = 10.0	G =	G =	G = 14.0	G = 65.0	G =	G =				
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 6	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 120.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	21	5	5	40	18	95	32	1326		253	1689	
Lane group cap.	149	157	309	149	154	373	405	2733		405	2723	
v/c ratio	0.14	0.03	0.02	0.27	0.12	0.25	0.08	0.49		0.62	0.62	
Green ratio	0.08	0.08	0.20	0.08	0.08	0.24	0.12	0.54		0.12	0.54	
Unif. delay d1	51.0	50.6	38.5	51.6	50.9	36.8	47.3	17.1		50.5	19.0	
Delay factor k	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11		0.21	0.20	
Increm. delay d2	0.4	0.1	0.0	1.0	0.3	0.4	0.1	0.1		3.0	0.4	
PF factor	1.000	1.000	1.000	1.000	1.000	1.000	0.912	0.212		0.912	0.212	
Control delay	51.5	50.6	38.5	52.5	51.3	37.1	43.2	3.8		49.1	4.5	
Lane group LOS	D	D	D	D	D	D	D	A		D	A	
Apprch. delay	49.2			42.8			4.7			10.3		
Approach LOS	D			D			A			B		
Intersec. delay	9.9			Intersection LOS						A		

SHORT REPORT												
General Information							Site Information					
Analyst	USA/						Intersection					
Agency or Co.	USA/						EL CAMINO REAL@ PLAZA					
Date Performed	05/01/12						DR.					
Time Period	AM PEAK						Area Type					
							All other areas					
							Jurisdiction					
							CARLSBAD					
							Analysis Year					
							BO.ALT.-2/WITH PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	1	1	1	1	1	2	3	0	2	3	0
Lane group	L	LT	R	L	LT	R	L	TR		L	TR	
Volume (vph)	21	5	5	45	10	91	30	1217	45	242	1512	97
% Heavy veh	1	1	1	1	1	1	1	2	1	1	2	1
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Arrival type	4	4	4	4	4	4	5	5		5	5	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	5	5	0	5	5	0	5	5	0	5	5	0
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0	0	0	0		0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Phasing	EB Only	WB Only	03	04	Excl. Left	Thru & RT	07	08				
Timing	G = 10.0	G = 10.0	G =	G =	G = 14.0	G = 65.0	G =	G =				
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 6	Y =	Y =				
Duration of Analysis (hrs) = 0.25							Cycle Length C = 120.0					
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	22	5	5	40	18	96	32	1328		255	1694	
Lane group cap.	149	157	309	149	154	373	405	2733		405	2722	
v/c ratio	0.15	0.03	0.02	0.27	0.12	0.26	0.08	0.49		0.63	0.62	
Green ratio	0.08	0.08	0.20	0.08	0.08	0.24	0.12	0.54		0.12	0.54	
Unif. delay d1	51.0	50.6	38.5	51.6	50.9	36.8	47.3	17.1		50.5	19.0	
Delay factor k	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11		0.21	0.21	
Increm. delay d2	0.5	0.1	0.0	1.0	0.3	0.4	0.1	0.1		3.1	0.4	
PF factor	1.000	1.000	1.000	1.000	1.000	1.000	0.912	0.212		0.912	0.212	
Control delay	51.5	50.6	38.5	52.5	51.3	37.2	43.2	3.8		49.2	4.5	
Lane group LOS	D	D	D	D	D	D	D	A		D	A	
Approch. delay	49.3			42.8			4.7			10.3		
Approach LOS	D			D			A			B		
Intersec. delay	9.9			Intersection LOS						A		

SHORT REPORT													
General Information							Site Information						
Analyst	USAI						Intersection						EL CAMINO REAL@ PLAZA
Agency or Co.	USAI						Area Type						All other areas
Date Performed	05/01/12						Jurisdiction						CARLSBAD
Time Period	PM PEAK						Analysis Year						BO.ALT.-2/NO PROJECT
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	1	1	1	1	1	1	2	3	0	2	3	0	
Lane group	L	LT	R	L	LT	R	L	TR		L	TR		
Volume (vph)	335	85	125	145	70	210	165	2025	75	395	1335	185	
% Heavy veh	1	1	1	1	1	1	1	2	1	1	2	1	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0		
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0		
Arrival type	4	4	4	4	4	4	5	5		5	5		
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		
Ped/Bike/RTOR Volume	5	5	0	5	5	0	5	5	0	5	5	0	
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0	0	0	0	0	0	0		0	0		
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		
Phasing	EB Only	WB Only	03	04	Excl. Left	Thru & RT	07	08					
Timing	G = 22.0	G = 19.0	G =	G =	G = 16.0	G = 52.0	G =	G =					
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 6	Y =	Y =					
Duration of Analysis (hrs) = 0.25							Cycle Length C = 130.0						
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	219	223	132	107	120	221	174	2211		416	1600		
Lane group cap.	302	309	456	261	270	479	427	2018		427	1990		
v/c ratio	0.73	0.72	0.29	0.41	0.44	0.46	0.41	1.10		0.97	0.80		
Green ratio	0.17	0.17	0.29	0.15	0.15	0.31	0.12	0.40		0.12	0.40		
Unif. delay d1	51.1	51.1	35.6	50.4	50.7	36.3	52.6	39.0		56.8	34.5		
Delay factor k	0.29	0.28	0.11	0.11	0.11	0.11	0.11	0.50		0.48	0.35		
Increm. delay d2	8.4	8.0	0.4	1.1	1.2	0.7	0.6	51.6		36.7	2.5		
PF factor	1.000	1.000	0.992	1.000	1.000	0.980	0.906	0.556		0.906	0.556		
Control delay	59.5	59.1	35.6	51.5	51.8	36.3	48.3	73.2		88.2	21.7		
Lane group LOS	E	E	D	D	D	D	D	E		F	C		
Apprch. delay	53.9			44.1			71.4			35.4			
Approach LOS	D			D			E			D			
Intersec. delay	53.9			Intersection LOS						D			

SHORT REPORT													
General Information							Site Information						
Analyst	USAI						Intersection						EL CAMINO REAL@ PLAZA
Agency or Co.	USAI						Area Type						All other areas
Date Performed	05/01/12						Jurisdiction						CARLSBAD
Time Period	PM PEAK						Analysis Year						BO.ALT.-2/WITH PROJECT
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	1	1	1	1	1	1	2	3	0	2	3	0	
Lane group	L	LT	R	L	LT	R	L	TR		L	TR		
Volume (vph)	337	85	125	145	70	212	165	2027	75	396	1336	186	
% Heavy veh	1	1	1	1	1	1	1	2	1	1	2	1	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0		
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0		
Arrival type	4	4	4	4	4	4	5	5		5	5		
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		
Ped/Bike/RTOR Volume	5	5	0	5	5	0	5	5	0	5	5	0	
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0	0	0	0	0	0	0		0	0		
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		
Phasing	EB Only	WB Only	03	04	Excl. Left	Thru & RT	07	08					
Timing	G = 22.0	G = 19.0	G =	G =	G = 16.0	G = 52.0	G =	G =					
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 6	Y =	Y =					
Duration of Analysis (hrs) = 0.25							Cycle Length C = 130.0						
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	220	224	132	107	120	223	174	2213		417	1602		
Lane group cap.	302	309	456	261	270	479	427	2018		427	1990		
v/c ratio	0.73	0.72	0.29	0.41	0.44	0.47	0.41	1.10		0.98	0.81		
Green ratio	0.17	0.17	0.29	0.15	0.15	0.31	0.12	0.40		0.12	0.40		
Unif. delay d1	51.2	51.1	35.6	50.4	50.7	36.4	52.6	39.0		56.8	34.5		
Delay factor k	0.29	0.29	0.11	0.11	0.11	0.11	0.11	0.50		0.48	0.35		
Increm. delay d2	8.6	8.2	0.4	1.1	1.2	0.7	0.6	52.0		37.3	2.5		
PF factor	1.000	1.000	0.992	1.000	1.000	0.980	0.906	0.556		0.906	0.556		
Control delay	59.8	59.4	35.6	51.5	51.8	36.3	48.3	73.6		88.8	21.7		
Lane group LOS	E	E	D	D	D	D	D	E		F	C		
Apprch. delay	54.1			44.1			71.8			35.6			
Approach LOS	D			D			E			D			
Intersec. delay	54.1			Intersection LOS						D			

SHORT REPORT												
General Information							Site Information					
Analyst	USAI						EL CAMINO REAL@					
Agency or Co.	USAI						MARRON RD.					
Date Performed	05/01/12						All other areas					
Time Period	AM PEAK						CARLSBAD-INT.#5					
							Analysis Year					
							BO.ALT.-2/NO PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	2	0	1	2	0	2	3	0	2	3	0
Lane group	L	TR		L	TR		L	TR		L	TR	
Volume (vph)	65	35	50	95	45	110	50	1115	35	90	1350	120
% Heavy veh	1	1	1	1	1	1	1	2	1	1	2	1
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Arrival type	4	4		4	4		5	5		5	5	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	5		0	5		0	5	5	0	5	5	0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0		0	0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08				
Timing	G = 12.0	G = 12.0	G =	G =	G = 14.0	G = 61.0	G =	G =				
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 6	Y =	Y =				
Duration of Analysis (hrs) = 0.25							Cycle Length C = 120.0					
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	68	90		100	163		53	1211		95	1547	
Lane group cap.	179	327		179	320		405	2567		405	2546	
v/c ratio	0.38	0.28		0.56	0.51		0.13	0.47		0.23	0.61	
Green ratio	0.10	0.10		0.10	0.10		0.12	0.51		0.12	0.51	
Unif. delay d1	50.5	50.0		51.5	51.2		47.5	19.1		48.1	21.0	
Delay factor k	0.11	0.11		0.16	0.12		0.11	0.11		0.11	0.19	
Increm. delay d2	1.3	0.5		3.9	1.4		0.1	0.1		0.3	0.4	
PF factor	1.000	1.000		1.000	1.000		0.912	0.311		0.912	0.311	
Control delay	51.9	50.4		55.4	52.6		43.5	6.1		44.2	6.9	
Lane group LOS	D	D		E	D		D	A		D	A	
Apprch. delay	51.1			53.6			7.6			9.1		
Approach LOS	D			D			A			A		
Intersec. delay	14.1			Intersection LOS						B		

SHORT REPORT													
General Information						Site Information							
Analyst	USA/					Intersection	EL CAMINO REAL@						
Agency or Co.	USA/					Area Type	MARRON RD.						
Date Performed	05/01/12					Jurisdiction	All other areas						
Time Period	AM PEAK					Analysis Year	CARLSBAD-INT.#5						
						BO.ALT.-2/WITH PROJECT							
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	1	2	0	1	2	0	2	3	0	2	3	0	
Lane group	L	TR		L	TR		L	TR		L	TR		
Volume (vph)	67	35	51	95	45	110	52	1115	35	90	1350	122	
% Heavy veh	1	1	1	1	1	1	1	2	1	1	2	1	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0		
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0		
Arrival type	4	4		4	4		5	5		5	5		
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0		
Ped/Bike/RTOR Volume	5		0	5		0	5	5	0	5	5	0	
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0		0	0		0	0		0	0		
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0		
Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08					
Timing	G = 12.0	G = 12.0	G =	G =	G = 14.0	G = 61.0	G =	G =					
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 6	Y =	Y =					
Duration of Analysis (hrs) = 0.25						Cycle Length C = 120.0							
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	71	91		100	163		55	1211		95	1549		
Lane group cap.	179	326		179	320		405	2567		405	2546		
v/c ratio	0.40	0.28		0.56	0.51		0.14	0.47		0.23	0.61		
Green ratio	0.10	0.10		0.10	0.10		0.12	0.51		0.12	0.51		
Unif. delay d1	50.6	50.0		51.5	51.2		47.6	19.1		48.1	21.0		
Delay factor k	0.11	0.11		0.16	0.12		0.11	0.11		0.11	0.19		
Increm. delay d2	1.4	0.5		3.9	1.4		0.2	0.1		0.3	0.4		
PF factor	1.000	1.000		1.000	1.000		0.912	0.311		0.912	0.311		
Control delay	52.1	50.5		55.4	52.6		43.5	6.1		44.2	7.0		
Lane group LOS	D	D		E	D		D	A		D	A		
Apprch. delay	51.2			53.6			7.7			9.1			
Approach LOS	D			D			A			A			
Intersec. delay	14.1			Intersection LOS						B			

SHORT REPORT												
General Information							Site Information					
Analyst	USA/						EL CAMINO REAL@					
Agency or Co.	USA/						MARRON RD.					
Date Performed	05/01/12						All other areas					
Time Period	PM PEAK						CARLSBAD					
							Analysis Year BO.ALT.-2/NO PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	2	0	1	2	0	2	3	0	2	3	0
Lane group	L	TR		L	TR		L	TR		L	TR	
Volume (vph)	335	140	110	140	110	180	180	1750	95	245	1130	230
% Heavy veh	1	1	1	1	1	1	1	2	1	1	2	1
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Arrival type	4	4		4	4		5	5		5	5	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	5		0	5		0	5	5	0	5	5	0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0		0	0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08				
Timing	G = 28.0	G = 20.0	G =	G =	G = 15.0	G = 51.0	G =	G =				
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 6	Y =	Y =				
Duration of Analysis (hrs) = 0.25							Cycle Length C = 135.0					
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	353	263		147	305		189	1942		258	1431	
Lane group cap.	371	496		371	481		386	1901		386	1865	
v/c ratio	0.95	0.53		0.40	0.63		0.49	1.02		0.67	0.77	
Green ratio	0.21	0.15		0.21	0.15		0.11	0.38		0.11	0.38	
Unif. delay d1	52.8	53.2		46.2	54.1		56.4	42.0		57.6	36.8	
Delay factor k	0.46	0.13		0.11	0.21		0.11	0.50		0.24	0.32	
Increm. delay d2	34.2	1.1		0.7	2.7		0.9	25.2		4.4	2.0	
PF factor	1.000	1.000		1.000	1.000		0.917	0.595		0.917	0.595	
Control delay	87.1	54.2		46.9	56.8		52.6	50.2		57.2	23.9	
Lane group LOS	F	D		D	E		D	D		E	C	
Apprch. delay	73.1			53.6			50.4			29.0		
Approach LOS	E			D			D			C		
Intersec. delay	46.2			Intersection LOS						D		

SHORT REPORT												
General Information							Site Information					
Analyst USAI Agency or Co. USAI Date Performed 05/01/12 Time Period PM PEAK							Intersection EL CAMINO REAL@ MARRON RD. Area Type All other areas Jurisdiction CARLSBAD Analysis Year BO.ALT.-2/WITH PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	2	0	1	2	0	2	3	0	2	3	0
Lane group	L	TR		L	TR		L	TR		L	TR	
Volume (vph)	337	140	112	140	110	180	180	1750	95	245	1130	231
% Heavy veh	1	1	1	1	1	1	1	2	1	1	2	1
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Arrival type	4	4		4	4		5	5		5	5	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	5		0	5		0	5	5	0	5	5	0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0		0	0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08				
Timing	G = 28.0	G = 20.0	G =	G =	G = 15.0	G = 51.0	G =	G =				
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 6	Y =	Y =				
Duration of Analysis (hrs) = 0.25							Cycle Length C = 135.0					
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	355	265		147	305		189	1942		258	1432	
Lane group cap.	371	495		371	481		386	1901		386	1865	
v/c ratio	0.96	0.54		0.40	0.63		0.49	1.02		0.67	0.77	
Green ratio	0.21	0.15		0.21	0.15		0.11	0.38		0.11	0.38	
Unif. delay d1	52.9	53.2		46.2	54.1		56.4	42.0		57.6	36.8	
Delay factor k	0.47	0.14		0.11	0.21		0.11	0.50		0.24	0.32	
Increm. delay d2	35.5	1.1		0.7	2.7		0.9	25.2		4.4	2.0	
PF factor	1.000	1.000		1.000	1.000		0.917	0.595		0.917	0.595	
Control delay	88.4	54.3		46.9	56.8		52.6	50.2		57.2	23.9	
Lane group LOS	F	D		D	E		D	D		E	C	
Apprch. delay	73.8			53.6			50.4			29.0		
Approach LOS	E			D			D			C		
Intersec. delay	46.3			Intersection LOS						D		

SHORT REPORT													
General Information							Site Information						
Analyst	USAI						Intersection	EL CAMINO REAL@					
Agency or Co.	USAI						Area Type	CARLSBAD VILL.					
Date Performed	05/10/12						Jurisdiction	All other areas					
Time Period	AM PEAK						Analysis Year	CARLSBAD-INT.#6					
							BO.ALT.-2/NO PROJECT						
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	1	2	0	1	2	0	1	3	0	1	3	0	
Lane group	L	TR		L	TR		L	TR		L	TR		
Volume (vph)	130	115	60	75	580	150	40	795	25	110	1350	65	
% Heavy veh	1	1	1	1	1	1	1	2	1	1	2	1	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0		
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0		
Arrival type	4	4		4	4		5	5		5	5		
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0		
Ped/Bike/RTOR Volume	5		0	5		0	5	5	0	5	5	0	
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0		0	0		0	0		0	0		
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0		
Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08					
Timing	G = 17.0	G = 30.0	G =	G =	G = 14.0	G = 48.0	G =	G =					
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 6	Y =	Y =					
Duration of Analysis (hrs) = 0.25							Cycle Length C = 130.0						
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	137	184		79	769		42	863		116	1489		
Lane group cap.	234	784		234	801		192	1865		192	1860		
v/c ratio	0.59	0.23		0.34	0.96		0.22	0.46		0.60	0.80		
Green ratio	0.13	0.23		0.13	0.23		0.11	0.37		0.11	0.37		
Unif. delay d1	53.2	40.7		51.4	49.4		53.0	31.2		55.4	36.7		
Delay factor k	0.18	0.11		0.11	0.47		0.11	0.11		0.19	0.34		
Increm. delay d2	3.8	0.2		0.9	22.5		0.5	0.2		4.8	2.3		
PF factor	1.000	1.000		1.000	1.000		0.920	0.610		0.920	0.610		
Control delay	56.9	40.8		52.2	71.9		49.3	19.2		55.7	24.7		
Lane group LOS	E	D		D	E		D	B		E	C		
Apprch. delay	47.7			70.1			20.6			27.0			
Approach LOS	D			E			C			C			
Intersec. delay	37.1			Intersection LOS						D			

SHORT REPORT													
General Information							Site Information						
Analyst	USAI						Intersection	EL CAMINO REAL@					
Agency or Co.	USAI						Area Type	CARLSBAD VILL.					
Date Performed	05/10/12						Jurisdiction	All other areas					
Time Period	AM PEAK						Analysis Year	CARLSBAD-INT.#6					
							BO.ALT.-2/WITH PROJECT						
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	1	2	0	1	2	0	1	3	0	1	3	0	
Lane group	L	TR		L	TR		L	TR		L	TR		
Volume (vph)	130	115	60	76	580	151	40	795	26	111	1350	65	
% Heavy veh	1	1	1	1	1	1	1	2	1	1	2	1	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0		
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0		
Arrival type	4	4		4	4		5	5		5	5		
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0		
Ped/Bike/RTOR Volume	5		0	5		0	5	5	0	5	5	0	
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0		0	0		0	0		0	0		
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0		
Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08					
Timing	G = 17.0	G = 30.0	G =	G =	G = 14.0	G = 48.0	G =	G =					
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 6	Y =	Y =					
Duration of Analysis (hrs) = 0.25							Cycle Length C = 130.0						
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	137	184		80	770		42	864		117	1489		
Lane group cap.	234	784		234	801		192	1864		192	1860		
v/c ratio	0.59	0.23		0.34	0.96		0.22	0.46		0.61	0.80		
Green ratio	0.13	0.23		0.13	0.23		0.11	0.37		0.11	0.37		
Unif. delay d1	53.2	40.7		51.4	49.4		53.0	31.2		55.4	36.7		
Delay factor k	0.18	0.11		0.11	0.47		0.11	0.11		0.20	0.34		
Increm. delay d2	3.8	0.2		0.9	22.7		0.5	0.2		5.0	2.3		
PF factor	1.000	1.000		1.000	1.000		0.920	0.610		0.920	0.610		
Control delay	56.9	40.8		52.3	72.2		49.3	19.2		55.9	24.7		
Lane group LOS	E	D		D	E		D	B		E	C		
Apprch. delay	47.7			70.3			20.6			27.0			
Approach LOS	D			E			C			C			
Intersec. delay	37.2			Intersection LOS						D			

SHORT REPORT												
General Information							Site Information					
Analyst	USA/						EL CAMINO REAL@					
Agency or Co.	USA/						CARLSBAD VILL.					
Date Performed	05/01/12						All other areas					
Time Period	PM PEAK						CARLSBAD-INT.#6					
							Analysis Year BO.ALT.-2/NO PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	2	0	1	2	0	1	3	0	1	3	0
Lane group	L	TR		L	TR		L	TR		L	TR	
Volume (vph)	155	295	65	45	235	155	110	1530	70	205	1045	130
% Heavy veh	1	1	1	1	1	1	1	2	1	1	2	1
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Arrival type	4	4		4	4		5	5		5	5	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	5		0	5		0	5	5	0	5	5	0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0		0	0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08				
Timing	G = 17.0	G = 30.0	G =	G =	G = 14.0	G = 48.0	G =	G =				
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 6	Y =	Y =				
Duration of Analysis (hrs) = 0.25							Cycle Length C = 130.0					
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	163	379		47	410		116	1685		216	1237	
Lane group cap.	234	804		234	777		192	1861		192	1841	
v/c ratio	0.70	0.47		0.20	0.53		0.60	0.91		1.13	0.67	
Green ratio	0.13	0.23		0.13	0.23		0.11	0.37		0.11	0.37	
Unif. delay d1	54.0	43.2		50.4	43.8		55.4	38.8		58.0	34.4	
Delay factor k	0.26	0.11		0.11	0.13		0.19	0.43		0.50	0.24	
Increm. delay d2	8.7	0.4		0.4	0.7		5.3	6.8		102.5	1.0	
PF factor	1.000	1.000		1.000	1.000		0.920	0.610		0.920	0.610	
Control delay	62.8	43.6		50.9	44.5		56.2	30.5		155.9	21.9	
Lane group LOS	E	D		D	D		E	C		F	C	
Apprch. delay	49.4			45.1			32.2			41.9		
Approach LOS	D			D			C			D		
Intersec. delay	39.1			Intersection LOS						D		

SHORT REPORT													
General Information							Site Information						
Analyst	USAI						Intersection	EL CAMINO REAL@					
Agency or Co.	USAI						Area Type	CARLSBAD VILL.					
Date Performed	05/01/12						Jurisdiction	All other areas					
Time Period	PM PEAK						Analysis Year	CARLSBAD-INT.#6					
							BO.ALT.-2/WITH PROJECT						
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	1	2	0	1	2	0	1	3	0	1	3	0	
Lane group	L	TR		L	TR		L	TR		L	TR		
Volume (vph)	155	295	65	46	235	156	110	1530	71	206	1045	130	
% Heavy veh	1	1	1	1	1	1	1	2	1	1	2	1	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0		
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0		
Arrival type	4	4		4	4		5	5		5	5		
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0		
Ped/Bike/RTOR Volume	5		0	5		0	5	5	0	5	5	0	
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0		0	0		0	0		0	0		
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0		
Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08					
Timing	G = 17.0	G = 30.0	G =	G =	G = 14.0	G = 48.0	G =	G =					
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 6	Y =	Y =					
Duration of Analysis (hrs) = 0.25							Cycle Length C = 130.0						
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	163	379		48	411		116	1686		217	1237		
Lane group cap.	234	804		234	777		192	1860		192	1841		
v/c ratio	0.70	0.47		0.21	0.53		0.60	0.91		1.13	0.67		
Green ratio	0.13	0.23		0.13	0.23		0.11	0.37		0.11	0.37		
Unif. delay d1	54.0	43.2		50.5	43.8		55.4	38.9		58.0	34.4		
Delay factor k	0.26	0.11		0.11	0.13		0.19	0.43		0.50	0.24		
Increm. delay d2	8.7	0.4		0.4	0.7		5.3	6.9		104.3	1.0		
PF factor	1.000	1.000		1.000	1.000		0.920	0.610		0.920	0.610		
Control delay	62.8	43.6		50.9	44.5		56.2	30.6		157.6	21.9		
Lane group LOS	E	D		D	D		E	C		F	C		
Apprch. delay	49.4			45.2			32.2			42.2			
Approach LOS	D			D			C			D			
Intersec. delay	39.2			Intersection LOS						D			

SHORT REPORT														
General Information							Site Information							
Analyst	USAI						Intersection VISTA WAY@RANCHO DEL ORO RD.							
Agency or Co.	USAI						Area Type All other areas							
Date Performed	05/10/12						Jurisdiction OCEANSIDE-INT.#7							
Time Period	AM PEAK						Analysis Year BO.ALT-2/NO PROJECT							
Volume and Timing Input														
	EB			WB			NB			SB				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
Num. of Lanes	1	2	1	2	2	0	1	2	0	1	2	1		
Lane group	L	T	R	L	TR		L	TR		L	T	R		
Volume (vph)	25	90	150	190	80	185	85	375	85	125	1220	125		
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2		
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92		
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A		
Startup lost time	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	2.0		
Ext. eff. green	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	2.0		
Arrival type	5	5	5	5	5		4	4		4	4	4		
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0		
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5	10	0		
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0	12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N		
Parking/hr														
Bus stops/hr	0	0	0	0	0		0	0		0	0	0		
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0		
Phasing	Excl. Left	Thru & RT	03			04			Excl. Left	Thru & RT	07		08	
Timing	G = 14.0	G = 15.0	G =			G =			G = 10.0	G = 46.0	G =		G =	
	Y = 5	Y = 5	Y =			Y =			Y = 5	Y = 5	Y =		Y =	
Duration of Analysis (hrs) = 0.25						Cycle Length C = 105.0								
Lane Group Capacity, Control Delay, and LOS Determination														
	EB			WB			NB			SB				
Adj. flow rate	27	98	163	207	288		92	500		136	1326	136		
Lane group cap.	236	507	218	458	442		169	1505		169	1554	962		
v/c ratio	0.11	0.19	0.75	0.45	0.65		0.54	0.33		0.80	0.85	0.14		
Green ratio	0.13	0.14	0.14	0.13	0.14		0.10	0.44		0.10	0.44	0.62		
Unif. delay d1	40.0	39.7	43.2	42.0	42.5		45.3	19.4		46.5	26.5	8.3		
Delay factor k	0.11	0.11	0.30	0.11	0.23		0.14	0.11		0.35	0.39	0.11		
Increm. delay d2	0.2	0.2	13.3	0.7	3.4		3.6	0.1		24.0	4.8	0.1		
PF factor	0.897	0.889	0.889	0.897	0.889		1.000	0.851		1.000	0.851	0.527		
Control delay	36.2	35.4	51.7	38.4	41.2		48.9	16.6		70.5	27.4	4.5		
Lane group LOS	D	D	D	D	D		D	B		E	C	A		
Apprch. delay	44.7			40.0			21.7			29.1				
Approach LOS	D			D			C			C				
Intersec. delay	30.9			Intersection LOS						C				

SHORT REPORT													
General Information						Site Information							
Analyst	USAI					Intersection VISTA WAY@RANCHO DEL ORO RD.							
Agency or Co.	USAI					Area Type All other areas							
Date Performed	05/10/12					Jurisdiction OCEANSIDE-INT.#7							
Time Period	AM PEAK					Analysis Year BO.ALT-2/WITH PROJECT							
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	1	2	1	2	2	0	1	2	0	1	2	1	
Lane group	L	T	R	L	TR		L	TR		L	T	R	
Volume (vph)	25	92	152	190	80	186	94	375	85	126	1220	125	
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2	
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	2.0	
Ext. eff. green	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	2.0	
Arrival type	5	5	5	5	5		4	4		4	4	4	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0	
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5	10	0	
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0	0	0	0		0	0		0	0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0	
Phasing	Excl. Left	Thru & RT	03			04			Excl. Left	Thru & RT	07		08
Timing	G = 14.0	G = 15.0	G =			G =			G = 10.0	G = 46.0	G =		G =
	Y = 5	Y = 5	Y =			Y =			Y = 5	Y = 5	Y =		Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 105.0							
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	27	100	165	207	289		102	500		137	1326	136	
Lane group cap.	236	507	218	458	442		169	1505		169	1554	962	
v/c ratio	0.11	0.20	0.76	0.45	0.65		0.60	0.33		0.81	0.85	0.14	
Green ratio	0.13	0.14	0.14	0.13	0.14		0.10	0.44		0.10	0.44	0.62	
Unif. delay d1	40.0	39.7	43.2	42.0	42.5		45.6	19.4		46.6	26.5	8.3	
Delay factor k	0.11	0.11	0.31	0.11	0.23		0.19	0.11		0.35	0.39	0.11	
Increm. delay d2	0.2	0.2	14.1	0.7	3.5		6.0	0.1		24.9	4.8	0.1	
PF factor	0.897	0.889	0.889	0.897	0.889		1.000	0.851		1.000	0.851	0.527	
Control delay	36.2	35.5	52.6	38.4	41.3		51.6	16.6		71.4	27.4	4.5	
Lane group LOS	D	D	D	D	D		D	B		E	C	A	
Apprch. delay	45.2			40.1			22.6			29.2			
Approach LOS	D			D			C			C			
Intersec. delay	31.2			Intersection LOS						C			

SHORT REPORT												
General Information						Site Information						
Analyst USA/ Agency or Co. USA/ Date Performed 05/01/12 Time Period PM PEAK						Intersection VISTA WAY@RANCHO DEL ORO RD. Area Type All other areas Jurisdiction OCEANSIDE-INT.#7 Analysis Year BO.ALT-2/NO PROJECT						
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	2	1	2	2	0	1	2	0	1	2	1
Lane group	L	T	R	L	TR		L	TR		L	T	R
Volume (vph)	115	190	430	385	130	315	115	1105	175	60	580	180
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	2.0
Ext. eff. green	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	2.0
Arrival type	5	5	5	5	5		4	4		4	4	4
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Ped/Bike/RTOR Volume	5	10	120	5	10	50	5	10	0	5	10	0
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0		0	0		0	0	0
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Phasing	Excl. Left	Thru & RT	03			04	Excl. Left	Thru & RT	07			08
Timing	G = 15.0	G = 25.0	G =			G =	G = 10.0	G = 50.0	G =			G =
	Y = 5	Y = 5	Y =			Y =	Y = 5	Y = 5	Y =			Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 120.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	125	207	337	418	429		125	1391		65	630	196
Lane group cap.	221	739	320	430	651		148	1443		148	1478	906
v/c ratio	0.57	0.28	1.05	0.97	0.66		0.84	0.96		0.44	0.43	0.22
Green ratio	0.13	0.21	0.21	0.13	0.21		0.08	0.42		0.08	0.42	0.58
Unif. delay d1	49.4	39.9	47.5	52.3	43.6		54.2	34.1		52.3	24.8	11.9
Delay factor k	0.16	0.11	0.50	0.48	0.23		0.38	0.47		0.11	0.11	0.11
Increm. delay d2	3.4	0.2	64.9	36.0	2.5		33.8	15.9		2.1	0.2	0.1
PF factor	0.905	0.825	0.825	0.905	0.825		1.000	0.876		1.000	0.876	0.613
Control delay	48.1	33.1	104.1	83.4	38.4		88.0	45.8		54.4	22.0	7.4
Lane group LOS	D	C	F	F	D		F	D		D	C	A
Apprch. delay	71.7			60.6			49.3			21.1		
Approach LOS	E			E			D			C		
Intersec. delay	49.1			Intersection LOS						D		

SHORT REPORT												
General Information						Site Information						
Analyst	USA/					Intersection VISTA WAY@RANCHO DEL						
Agency or Co.	USA/					ORO RD.						
Date Performed	05/01/12					Area Type All other areas						
Time Period	PM PEAK					Jurisdiction OCEANSIDE-INT.#7						
						Analysis Year BO.ALT-2/WITH PROJECT						
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	2	1	2	2	0	1	2	0	1	2	1
Lane group	L	T	R	L	TR		L	TR		L	T	R
Volume (vph)	115	190	435	385	130	315	120	1105	175	61	580	180
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	2.0
Ext. eff. green	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	2.0
Arrival type	5	5	5	5	5		4	4		4	4	4
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Ped/Bike/RTOR Volume	5	10	120	5	10	50	5	10	0	5	10	0
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0		0	0		0	0	0
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Phasing	Excl. Left	Thru & RT	03		04		Excl. Left	Thru & RT	07		08	
Timing	G = 15.0	G = 25.0	G =		G =		G = 10.0	G = 50.0	G =		G =	
	Y = 5	Y = 5	Y =		Y =		Y = 5	Y = 5	Y =		Y =	
Duration of Analysis (hrs) = 0.25						Cycle Length C = 120.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	125	207	342	418	429		130	1391		66	630	196
Lane group cap.	221	739	320	430	651		148	1443		148	1478	906
v/c ratio	0.57	0.28	1.07	0.97	0.66		0.88	0.96		0.45	0.43	0.22
Green ratio	0.13	0.21	0.21	0.13	0.21		0.08	0.42		0.08	0.42	0.58
Unif. delay d1	49.4	39.9	47.5	52.3	43.6		54.4	34.1		52.4	24.8	11.9
Delay factor k	0.16	0.11	0.50	0.48	0.23		0.41	0.47		0.11	0.11	0.11
Increm. delay d2	3.4	0.2	69.7	36.0	2.5		40.8	15.9		2.1	0.2	0.1
PF factor	0.905	0.825	0.825	0.905	0.825		1.000	0.876		1.000	0.876	0.613
Control delay	48.1	33.1	108.9	83.4	38.4		95.2	45.8		54.5	22.0	7.4
Lane group LOS	D	C	F	F	D		F	D		D	C	A
Apprch. delay	74.4			60.6			50.0			21.2		
Approach LOS	E			E			D			C		
Intersec. delay	49.9			Intersection LOS						D		

SHORT REPORT												
General Information						Site Information						
Analyst USAI Agency or Co. USAI Date Performed 05/01/12 Time Period AM PEAK						Intersection SR-78WB RAMPS/RANCHO DEL ORO R Area Type All other areas Jurisdiction OCEANSIDE-INT.#8 Analysis Year BO.ALT.-2/NO PROJECT						
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	0	0	0	1	1	1	2	0	0	2	1
Lane group					LTR	R	L	T			T	R
Volume (vph)				5	5	400	5	145			800	760
% Heavy veh				10	10	0	10	10			10	10
PHF				0.95	0.95	0.95	0.95	0.95			0.95	0.95
Actuated (P/A)				A	A	A	A	A	A		A	A
Startup lost time					2.0	2.0	2.0	2.0			2.0	2.0
Ext. eff. green					2.0	2.0	2.0	2.0			2.0	2.0
Arrival type					3	3	3	5			5	3
Unit Extension					3.0	3.0	3.0	3.0			3.0	3.0
Ped/Bike/RTOR Volume	10			0		0				0	0	200
Lane Width					12.0	12.0	12.0	12.0			12.0	12.0
Parking/Grade/Parking	N		N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr					0	0	0	0			0	0
Unit Extension					3.0	3.0	3.0	3.0			3.0	3.0
Phasing	WB Only	02	03	04	NB Only	Thru & RT	07	08				
Timing	G = 22.0	G =	G =	G =	G = 30.0	G = 48.0	G =	G =				
	Y = 5	Y =	Y =	Y =	Y = 5	Y = 5	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 115.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate				199	232	5	153			842	589	
Lane group cap.				310	309	428	2499			1445	613	
v/c ratio				0.64	0.75	0.01	0.06			0.58	0.96	
Green ratio				0.19	0.19	0.26	0.72			0.42	0.42	
Unif. delay d1				42.9	43.9	31.5	4.7			25.8	32.6	
Delay factor k				0.22	0.31	0.11	0.11			0.17	0.47	
Increm. delay d2				4.5	9.9	0.0	0.0			0.6	26.8	
PF factor				1.000	1.000	1.000	0.180			0.522	1.000	
Control delay				47.3	53.8	31.5	0.8			14.1	59.4	
Lane group LOS				D	D	C	A			B	E	
Apprch. delay				50.8			1.8			32.7		
Approach LOS				D			A			C		
Intersec. delay	34.2			Intersection LOS						C		

SHORT REPORT												
General Information						Site Information						
Analyst USAI						Intersection SR-78WB RAMPS/RANCHO						
Agency or Co. USAI						DEL ORO R						
Date Performed 05/01/12						Area Type All other areas						
Time Period AM PEAK						Jurisdiction OCEANSIDE-INT.#8						
						Analysis Year BO.ALT.-2/WITH PROJECT						
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	0	0	0	1	1	1	2	0	0	2	1
Lane group					LTR	R	L	T			T	R
Volume (vph)				5	5	409	5	145			802	760
% Heavy veh				10	10	0	10	10			10	10
PHF				0.95	0.95	0.95	0.95	0.95			0.95	0.95
Actuated (P/A)				A	A	A	A	A	A		A	A
Startup lost time					2.0	2.0	2.0	2.0			2.0	2.0
Ext. eff. green					2.0	2.0	2.0	2.0			2.0	2.0
Arrival type					3	3	3	5			5	3
Unit Extension					3.0	3.0	3.0	3.0			3.0	3.0
Ped/Bike/RTOR Volume	10			0		0				0	0	200
Lane Width					12.0	12.0	12.0	12.0			12.0	12.0
Parking/Grade/Parking	N		N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr					0	0	0	0			0	0
Unit Extension					3.0	3.0	3.0	3.0			3.0	3.0
Phasing	WB Only	02	03	04	NB Only	Thru & RT	07	08				
Timing	G = 22.0	G =	G =	G =	G = 30.0	G = 48.0	G =	G =				
	Y = 5	Y =	Y =	Y =	Y = 5	Y = 5	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 115.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate				204	237	5	153			844	589	
Lane group cap.				310	309	428	2499			1445	613	
v/c ratio				0.66	0.77	0.01	0.06			0.58	0.96	
Green ratio				0.19	0.19	0.26	0.72			0.42	0.42	
Unif. delay d1				43.0	44.1	31.5	4.7			25.8	32.6	
Delay factor k				0.23	0.32	0.11	0.11			0.18	0.47	
Increm. delay d2				5.0	11.0	0.0	0.0			0.6	26.8	
PF factor				1.000	1.000	1.000	0.180			0.522	1.000	
Control delay				48.1	55.1	31.5	0.8			14.1	59.4	
Lane group LOS				D	E	C	A			B	E	
Apprch. delay				51.9			1.8			32.7		
Approach LOS				D			A			C		
Intersec. delay	34.5			Intersection LOS						C		

SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection SR-78WB RAMPS/RANCHO						
Agency or Co.	USAI					DEL ORO R						
Date Performed	05/01/12					Area Type All other areas						
Time Period	PM PEAK					Jurisdiction OCEANSIDE-INT.#8						
						Analysis Year BO.ALT.-2/NO PROJECT						
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	0	0	0	1	1	1	2	0	0	2	1
Lane group					LTR	R	L	T			T	R
Volume (vph)				5	5	750	5	645			720	675
% Heavy veh				10	10	0	10	10			10	10
PHF				0.95	0.95	0.95	0.95	0.95			0.95	0.95
Actuated (P/A)				A	A	A	A	A	A		A	A
Startup lost time					2.0	2.0	2.0	2.0			2.0	2.0
Ext. eff. green					2.0	2.0	2.0	2.0			2.0	2.0
Arrival type					3	3	3	5			5	3
Unit Extension					3.0	3.0	3.0	3.0			3.0	3.0
Ped/Bike/RTOR Volume	10			0		0				0	0	200
Lane Width					12.0	12.0	12.0	12.0			12.0	12.0
Parking/Grade/Parking	N		N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr					0	0	0	0			0	0
Unit Extension					3.0	3.0	3.0	3.0			3.0	3.0
Phasing	WB Only	02	03	04	NB Only	Thru & RT	07	08				
Timing	G = 37.0	G =	G =	G =	G = 21.0	G = 47.0	G =	G =				
	Y = 5	Y =	Y =	Y =	Y = 5	Y = 5	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 120.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate				365	434	5	679			758	500	
Lane group cap.				499	498	287	2106			1356	575	
v/c ratio				0.73	0.87	0.02	0.32			0.56	0.87	
Green ratio				0.31	0.31	0.17	0.61			0.39	0.39	
Unif. delay d1				37.1	39.3	41.0	11.4			28.4	33.7	
Delay factor k				0.29	0.40	0.11	0.11			0.16	0.40	
Increm. delay d2				5.5	15.5	0.0	0.1			0.5	13.5	
PF factor				1.000	1.000	1.000	0.128			0.571	1.000	
Control delay				42.5	54.7	41.0	1.6			16.7	47.2	
Lane group LOS				D	D	D	A			B	D	
Apprch. delay				49.1			1.8			28.8		
Approach LOS				D			A			C		
Intersec. delay	28.0			Intersection LOS						C		

SHORT REPORT												
General Information						Site Information						
Analyst	USA/					SR-78WB RAMPS/RANCHO						
Agency or Co.	USA/					DEL ORO R						
Date Performed	05/01/12					Area Type						
Time Period	PM PEAK					All other areas						
						Jurisdiction						
						OCEANSIDE-INT.#8						
						Analysis Year						
						BO.ALT.-2/WITH PROJECT						
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	0	0	0	1	1	1	2	0	0	2	1
Lane group					LTR	R	L	T			T	R
Volume (vph)				5	5	755	5	645			725	675
% Heavy veh				10	10	0	10	10			10	10
PHF				0.95	0.95	0.95	0.95	0.95			0.95	0.95
Actuated (P/A)				A	A	A	A	A	A		A	A
Startup lost time					2.0	2.0	2.0	2.0			2.0	2.0
Ext. eff. green					2.0	2.0	2.0	2.0			2.0	2.0
Arrival type					3	3	3	5			5	3
Unit Extension					3.0	3.0	3.0	3.0			3.0	3.0
Ped/Bike/RTOR Volume	10			0		0				0	0	200
Lane Width					12.0	12.0	12.0	12.0			12.0	12.0
Parking/Grade/Parking	N		N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr					0	0	0	0			0	0
Unit Extension					3.0	3.0	3.0	3.0			3.0	3.0
Phasing	WB Only	02	03	04	NB Only	Thru & RT	07	08				
Timing	G = 37.0	G =	G =	G =	G = 21.0	G = 47.0	G =	G =				
	Y = 5	Y =	Y =	Y =	Y = 5	Y = 5	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 120.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate				368	437	5	679			763	500	
Lane group cap.				499	498	287	2106			1356	575	
v/c ratio				0.74	0.88	0.02	0.32			0.56	0.87	
Green ratio				0.31	0.31	0.17	0.61			0.39	0.39	
Unif. delay d1				37.2	39.4	41.0	11.4			28.5	33.7	
Delay factor k				0.30	0.40	0.11	0.11			0.16	0.40	
Increm. delay d2				5.7	16.2	0.0	0.1			0.5	13.5	
PF factor				1.000	1.000	1.000	0.128			0.571	1.000	
Control delay				42.9	55.5	41.0	1.6			16.8	47.2	
Lane group LOS				D	E	D	A			B	D	
Apprch. delay				49.7			1.8			28.8		
Approach LOS				D			A			C		
Intersec. delay	28.2			Intersection LOS						C		

SHORT REPORT													
General Information						Site Information							
Analyst	USAI					Intersection	SR-78EB RAMPS/RANCHO DEL ORO R						
Agency or Co.	USAI					Area Type	All other areas						
Date Performed	05/01/12					Jurisdiction	OCEANSIDE-INT.#9						
Time Period	AM PEAK					Analysis Year	BO.ALT.-2/NO PROJECT						
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	1	1	0	0	0	0	0	0	0	2	0	0	
Lane group	L	LT								L			
Volume (vph)	150	5								805			
% Heavy veh	10	10								10			
PHF	0.95	0.95								0.95			
Actuated (P/A)	A	A	A							A	A		
Startup lost time	2.0	2.0								2.0			
Ext. eff. green	2.0	2.0								2.0			
Arrival type	3	3								5			
Unit Extension	3.0	3.0								3.0			
Ped/Bike/RTOR Volume				0			10						
Lane Width	12.0	12.0								12.0			
Parking/Grade/Parking	N	0	N	N		N	N		N	N	0	N	
Parking/hr													
Bus stops/hr	0	0								0			
Unit Extension	3.0	3.0								3.0			
Phasing	EB Only	02	03	04	SB Only	06	07	08					
Timing	G = 23.0	G =	G =	G =	G = 37.0	G =	G =	G =					
	Y = 5	Y =	Y =	Y =	Y = 5	Y =	Y =	Y =					
Duration of Analysis (hrs) = 0.25						Cycle Length C = 70.0							
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	88	75								847			
Lane group cap.	539	542								1685			
v/c ratio	0.16	0.14								0.50			
Green ratio	0.33	0.33								0.53			
Unif. delay d1	16.7	16.5								10.6			
Delay factor k	0.11	0.11								0.11			
Increm. delay d2	0.1	0.1								0.2			
PF factor	1.000	1.000								0.253			
Control delay	16.8	16.6								2.9			
Lane group LOS	B	B								A			
Apprch. delay	16.7									2.9			
Approach LOS	B									A			
Intersec. delay	5.1			Intersection LOS						A			

SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	SR-78EB RAMPS/RANCHO DEL ORO R					
Agency or Co.	USAI					Area Type	All other areas					
Date Performed	05/01/12					Jurisdiction	OCEANSIDE-INT.#9					
Time Period	AM PEAK					Analysis Year	BO.ALT.-2/WITH PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	1	0	0	0	0	0	0	0	2	0	0
Lane group	L	LT								L		
Volume (vph)	150	5								807		
% Heavy veh	10	10								10		
PHF	0.95	0.95								0.95		
Actuated (P/A)	A	A	A							A	A	
Startup lost time	2.0	2.0								2.0		
Ext. eff. green	2.0	2.0								2.0		
Arrival type	3	3								5		
Unit Extension	3.0	3.0								3.0		
Ped/Bike/RTOR Volume				0			10					
Lane Width	12.0	12.0								12.0		
Parking/Grade/Parking	N	0	N	N		N	N		N	N	0	N
Parking/hr												
Bus stops/hr	0	0								0		
Unit Extension	3.0	3.0								3.0		
Phasing	EB Only	02	03	04	SB Only	06	07	08				
Timing	G = 23.0	G =	G =	G =	G = 37.0	G =	G =	G =				
	Y = 5	Y =	Y =	Y =	Y = 5	Y =	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 70.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	88	75								849		
Lane group cap.	539	542								1685		
v/c ratio	0.16	0.14								0.50		
Green ratio	0.33	0.33								0.53		
Unif. delay d1	16.7	16.5								10.6		
Delay factor k	0.11	0.11								0.11		
Increm. delay d2	0.1	0.1								0.2		
PF factor	1.000	1.000								0.253		
Control delay	16.8	16.6								2.9		
Lane group LOS	B	B								A		
Apprch. delay	16.7									2.9		
Approach LOS	B									A		
Intersec. delay	5.1			Intersection LOS						A		

SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	SR-78EB RAMPS/RANCHO DEL ORO R					
Agency or Co.	USAI					Area Type	All other areas					
Date Performed	05/01/12					Jurisdiction	OCEANSIDE-INT.#9					
Time Period	PM PEAK					Analysis Year	BO.ALT.-2/NO PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	1	0	0	0	0	0	0	0	2	0	0
Lane group	L	LT								L		
Volume (vph)	650	5								725		
% Heavy veh	10	10								10		
PHF	0.95	0.95								0.95		
Actuated (P/A)	A	A	A							A	A	
Startup lost time	2.0	2.0								2.0		
Ext. eff. green	2.0	2.0								2.0		
Arrival type	3	3								5		
Unit Extension	3.0	3.0								3.0		
Ped/Bike/RTOR Volume				0			10					
Lane Width	12.0	12.0								12.0		
Parking/Grade/Parking	N	0	N	N		N	N		N	N	0	N
Parking/hr												
Bus stops/hr	0	0								0		
Unit Extension	3.0	3.0								3.0		
Phasing	EB Only	02	03	04	SB Only	06	07	08				
Timing	G = 25.0	G =	G =	G =	G = 35.0	G =	G =	G =				
	Y = 5	Y =	Y =	Y =	Y = 5	Y =	Y =	Y =				
Duration of Analysis (hrs) = 0.25				Cycle Length C = 70.0								
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	383	306								763		
Lane group cap.	586	588								1594		
v/c ratio	0.65	0.52								0.48		
Green ratio	0.36	0.36								0.50		
Unif. delay d1	18.9	17.8								11.5		
Delay factor k	0.23	0.13								0.11		
Increm. delay d2	2.6	0.8								0.2		
PF factor	1.000	1.000								0.333		
Control delay	21.5	18.6								4.1		
Lane group LOS	C	B								A		
Apprch. delay	20.2									4.1		
Approach LOS	C									A		
Intersec. delay	11.7			Intersection LOS						B		

SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection SR-78EB RAMPS/RANCHO DEL ORO R						
Agency or Co.	USAI					Area Type All other areas						
Date Performed	05/01/12					Jurisdiction OCEANSIDE-INT.#9						
Time Period	PM PEAK					Analysis Year BO.ALT.-2/WITH PROJECT						
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	1	0	0	0	0	0	0	0	2	0	0
Lane group	L	LT								L		
Volume (vph)	650	5								730		
% Heavy veh	10	10								10		
PHF	0.95	0.95								0.95		
Actuated (P/A)	A	A	A							A	A	
Startup lost time	2.0	2.0								2.0		
Ext. eff. green	2.0	2.0								2.0		
Arrival type	3	3								5		
Unit Extension	3.0	3.0								3.0		
Ped/Bike/RTOR Volume				0			10					
Lane Width	12.0	12.0								12.0		
Parking/Grade/Parking	N	0	N	N		N	N		N	N	0	N
Parking/hr												
Bus stops/hr	0	0								0		
Unit Extension	3.0	3.0								3.0		
Phasing	EB Only	02	03	04	SB Only	06	07	08				
Timing	G = 25.0	G =	G =	G =	G = 35.0	G =	G =	G =				
	Y = 5	Y =	Y =	Y =	Y = 5	Y =	Y =	Y =				
Duration of Analysis (hrs) = 0.25				Cycle Length C = 70.0								
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	383	306								768		
Lane group cap.	586	588								1594		
v/c ratio	0.65	0.52								0.48		
Green ratio	0.36	0.36								0.50		
Unif. delay d1	18.9	17.8								11.5		
Delay factor k	0.23	0.13								0.11		
Increm. delay d2	2.6	0.8								0.2		
PF factor	1.000	1.000								0.333		
Control delay	21.5	18.6								4.1		
Lane group LOS	C	B								A		
Apprch. delay	20.2									4.1		
Approach LOS	C									A		
Intersec. delay	11.7			Intersection LOS						B		

SHORT REPORT												
General Information						Site Information						
Analyst	USA/					COLLEGE BLVD.@ VISTA						
Agency or Co.	USA/					WAY						
Date Performed	08/22/12					Area Type						
Time Period	AM PEAK					All other areas						
						Jurisdiction						
						OCEANSIDE-INT#11						
						Analysis Year						
						BO.ALT.-2/NO PROJECT						
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	2	1	2	2	0	1	3	1	2	3	0
Lane group	L	T	R	L	TR		L	T	R	L	TR	
Volume (vph)	85	135	265	440	110	340	150	885	810	45	1625	75
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Ext. eff. green	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Arrival type	5	5	5	5	5		5	5	5	5	5	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	5	5	0	5	5	123	5	5	120	5	5	0
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0		0	0	0	0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Phasing	Excl. Left	WB Only	Thru & RT	04			Excl. Left	Thru & RT	07			08
Timing	G = 4.0	G = 8.0	G = 7.0	G =			G = 11.5	G = 40.0	G =			G =
	Y = 5.6	Y = 5.6	Y = 6.4	Y =			Y = 5.6	Y = 6.3	Y =			Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 100.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	89	142	279	463	344		158	932	726	47	1790	
Lane group cap.	137	248	379	605	647		204	2030	782	395	2014	
v/c ratio	0.65	0.57	0.74	0.77	0.53		0.77	0.46	0.93	0.12	0.89	
Green ratio	0.04	0.07	0.25	0.18	0.21		0.12	0.40	0.50	0.12	0.40	
Unif. delay d1	47.3	45.1	34.5	39.2	35.4		43.0	22.0	23.2	39.7	27.9	
Delay factor k	0.23	0.17	0.29	0.32	0.13		0.32	0.11	0.44	0.11	0.41	
Increm. delay d2	10.4	3.2	7.3	5.8	0.8		16.8	0.2	17.3	0.1	5.3	
PF factor	0.972	0.950	0.779	0.858	0.827		0.913	0.556	0.325	0.913	0.556	
Control delay	56.4	46.0	34.2	39.5	30.1		56.1	12.4	24.8	36.4	20.9	
Lane group LOS	E	D	C	D	C		E	B	C	D	C	
Apprch. delay	41.4			35.5			21.2			21.2		
Approach LOS	D			D			C			C		
Intersec. delay	25.6			Intersection LOS						C		

SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	COLLEGE BLVD.@ VISTA WAY					
Agency or Co.	USAI					Area Type	All other areas					
Date Performed	08/22/12					Jurisdiction	OCEANSIDE-INT#11					
Time Period	AM PEAK					Analysis Year	BO.ALT.-2/WITH PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	2	1	2	2	0	1	3	1	2	3	0
Lane group	L	T	R	L	TR		L	T	R	L	TR	
Volume (vph)	85	135	269	462	110	340	162	929	903	45	1641	75
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Ext. eff. green	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Arrival type	5	5	5	5	5		5	5	5	5	5	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	5	5	0	5	5	123	5	5	120	5	5	0
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0		0	0	0	0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Phasing	Excl. Left	WB Only	Thru & RT	04			Excl. Left	Thru & RT	07			08
Timing	G = 4.0	G = 8.0	G = 7.0	G =			G = 11.5	G = 40.0	G =			G =
	Y = 5.6	Y = 5.6	Y = 6.4	Y =			Y = 5.6	Y = 6.3	Y =			Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 100.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	89	142	283	486	344		171	978	824	47	1806	
Lane group cap.	137	248	379	605	647		204	2030	782	395	2015	
v/c ratio	0.65	0.57	0.75	0.80	0.53		0.84	0.48	1.05	0.12	0.90	
Green ratio	0.04	0.07	0.25	0.18	0.21		0.12	0.40	0.50	0.12	0.40	
Unif. delay d1	47.3	45.1	34.6	39.5	35.4		43.3	22.3	24.8	39.7	28.1	
Delay factor k	0.23	0.17	0.30	0.35	0.13		0.37	0.11	0.50	0.11	0.42	
Increm. delay d2	10.4	3.2	7.9	7.7	0.8		25.4	0.2	47.3	0.1	5.8	
PF factor	0.972	0.950	0.779	0.858	0.827		0.913	0.556	0.325	0.913	0.556	
Control delay	56.4	46.0	34.9	41.7	30.1		64.9	12.6	55.3	36.4	21.3	
Lane group LOS	E	D	C	D	C		E	B	E	D	C	
Apprch. delay	41.7			36.9			35.0			21.7		
Approach LOS	D			D			C			C		
Intersec. delay	31.2			Intersection LOS						C		

SHORT REPORT												
General Information							Site Information					
Analyst	USAI						COLLEGE BLVD.@ VISTA WAY					
Agency or Co.	USAI						Area Type					
Date Performed	08/22/12						All other areas					
Time Period	PM PEAK						Jurisdiction					
							OCEANSIDE-INT#11					
							Analysis Year					
							BO.ALT.-2/NO PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	2	1	2	2	0	1	3	1	2	3	0
Lane group	L	T	R	L	TR		L	T	R	L	TR	
Volume (vph)	145	120	330	450	285	425	295	1830	740	45	1305	100
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Ext. eff. green	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Arrival type	5	5	5	5	5		5	5	5	5	5	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	5	5	10	5	5	65	5	5	0	5	5	0
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0		0	0	0	0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Phasing	Excl. Left	WB Only	Thru & RT	04			Excl. Left	NB Only	Thru & RT	08		
Timing	G = 6.0	G = 9.0	G = 10.0	G =			G = 8.0	G = 6.0	G = 36.1	G =		
	Y = 5.6	Y = 5.6	Y = 6.3	Y =			Y = 5.6	Y = 5.6	Y = 6.2	Y =		
Duration of Analysis (hrs) = 0.25						Cycle Length C = 110.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	153	126	337	474	679		311	1926	779	47	1479	
Lane group cap.	187	322	338	644	717		315	2200	1055	250	1645	
v/c ratio	0.82	0.39	1.00	0.74	0.95		0.99	0.88	0.74	0.19	0.90	
Green ratio	0.05	0.09	0.22	0.19	0.22		0.18	0.43	0.68	0.07	0.33	
Unif. delay d1	51.5	47.1	42.8	42.1	42.1		45.1	28.4	11.5	47.9	35.2	
Delay factor k	0.36	0.11	0.50	0.29	0.46		0.49	0.40	0.30	0.11	0.42	
Increm. delay d2	24.0	0.8	48.1	4.4	21.6		47.1	4.3	2.8	0.4	7.1	
PF factor	0.962	0.933	0.811	0.846	0.808		0.855	0.490	0.155	0.948	0.674	
Control delay	73.5	44.8	82.8	40.1	55.6		85.7	18.2	4.6	45.8	30.8	
Lane group LOS	E	D	F	D	E		F	B	A	D	C	
Apprch. delay	72.7			49.2			21.7			31.3		
Approach LOS	E			D			C			C		
Intersec. delay	34.0			Intersection LOS						C		

SHORT REPORT												
General Information							Site Information					
Analyst	USA/						COLLEGE BLVD.@ VISTA WAY					
Agency or Co.	USA/						Area Type					
Date Performed	08/22/12						All other areas					
Time Period	PM PEAK						Jurisdiction					
							OCEANSIDE-INT#11					
							Analysis Year					
							BO.ALT.-2/WITH PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	2	1	2	2	0	1	3	1	2	3	0
Lane group	L	T	R	L	TR		L	T	R	L	TR	
Volume (vph)	145	120	343	518	285	425	301	1854	790	45	1354	100
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Ext. eff. green	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Arrival type	5	5	5	5	5		5	5	5	5	5	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	5	5	10	5	5	65	5	5	0	5	5	0
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0		0	0	0	0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Phasing	Excl. Left	WB Only	Thru & RT	04			Excl. Left	NB Only	Thru & RT	08		
Timing	G = 6.0	G = 9.0	G = 10.0	G =			G = 8.0	G = 6.0	G = 36.1	G =		
	Y = 5.6	Y = 5.6	Y = 6.3	Y =			Y = 5.6	Y = 5.6	Y = 6.2	Y =		
Duration of Analysis (hrs) = 0.25						Cycle Length C = 110.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	153	126	351	545	679		317	1952	832	47	1530	
Lane group cap.	187	322	338	644	717		315	2200	1055	250	1646	
v/c ratio	0.82	0.39	1.04	0.85	0.95		1.01	0.89	0.79	0.19	0.93	
Green ratio	0.05	0.09	0.22	0.19	0.22		0.18	0.43	0.68	0.07	0.33	
Unif. delay d1	51.5	47.1	42.8	43.2	42.1		45.2	28.7	12.3	47.9	35.7	
Delay factor k	0.36	0.11	0.50	0.38	0.46		0.50	0.41	0.34	0.11	0.45	
Increm. delay d2	24.0	0.8	59.3	10.2	21.6		52.3	4.8	4.1	0.4	9.8	
PF factor	0.962	0.933	0.811	0.846	0.808		0.855	0.490	0.155	0.948	0.674	
Control delay	73.5	44.8	94.0	46.7	55.6		91.0	18.9	6.0	45.8	33.9	
Lane group LOS	E	D	F	D	E		F	B	A	D	C	
Apprch. delay	79.2			51.6			22.8			34.2		
Approach LOS	E			D			C			C		
Intersec. delay	36.4			Intersection LOS						D		

TABLE 9-3-A
WITH MITIG ADD NB RT LANE/ADD WB RT LANE

SHORT REPORT												
General Information							Site Information					
Analyst	USAI						COLLEGE BLVD.@ VISTA WAY					
Agency or Co.	USAI						All other areas					
Date Performed	08/22/12						OCEANSIDE-INT#11/WITH					
Time Period	AM PEAK						MITIGATI					
							Analysis Year BO.ALT.-2/NO PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	2	1	2	2	1	1	3	2	2	3	0
Lane group	L	T	R	L	T	R	L	T	R	L	TR	
Volume (vph)	85	135	265	440	110	340	150	885	810	45	1625	75
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Arrival type	5	5	5	5	5	5	5	5	5	5	5	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	5	5	0	5	5	123	5	5	120	5	5	0
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0	0	0	0	0	0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Phasing	Excl. Left	WB Only	Thru & RT	04			Excl. Left	Thru & RT	07			08
Timing	G = 4.0	G = 8.0	G = 7.0	G =			G = 11.5	G = 40.0	G =			G =
	Y = 5.6	Y = 5.6	Y = 6.4	Y =			Y = 5.6	Y = 6.3	Y =			Y =
Duration of Analysis (hrs) = 0.25							Cycle Length C = 100.0					
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	89	142	279	463	116	228	158	932	726	47	1790	
Lane group cap.	137	248	379	605	731	318	204	2030	1368	395	2014	
v/c ratio	0.65	0.57	0.74	0.77	0.16	0.72	0.77	0.46	0.53	0.12	0.89	
Green ratio	0.04	0.07	0.25	0.18	0.21	0.21	0.12	0.40	0.50	0.12	0.40	
Unif. delay d1	47.3	45.1	34.5	39.2	32.6	37.0	43.0	22.0	16.8	39.7	27.9	
Delay factor k	0.23	0.17	0.29	0.32	0.11	0.28	0.32	0.11	0.13	0.11	0.41	
Increm. delay d2	10.4	3.2	7.3	5.8	0.1	7.6	16.8	0.2	0.4	0.1	5.3	
PF factor	0.972	0.950	0.779	0.858	0.827	0.827	0.913	0.556	0.325	0.913	0.556	
Control delay	56.4	46.0	34.2	39.5	27.1	38.1	56.1	12.4	5.9	36.4	20.9	
Lane group LOS	E	D	C	D	C	D	E	B	A	D	C	
Apprch. delay	41.4			37.3			13.6			21.2		
Approach LOS	D			D			B			C		
Intersec. delay	23.1			Intersection LOS						C		

TABLE 9-3-A
MITIG: ADD NB RT0 LANE/ADD WB RT0 LANE

SHORT REPORT													
General Information							Site Information						
Analyst	USAI						Intersection	COLLEGE BLVD.@ VISTA WAY					
Agency or Co.	USAI						Area Type	All other areas					
Date Performed	08/22/12						Jurisdiction	OCEANSIDE-INT#11/WITH MITIGATI					
Time Period	AM PEAK						Analysis Year	BO.ALT.-2/WITH PROJECT					
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	2	2	1	2	2	1	1	3	2	2	3	0	
Lane group	L	T	R	L	T	R	L	T	R	L	TR		
Volume (vph)	85	135	269	462	110	340	162	929	903	45	1641	75	
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		
Arrival type	5	5	5	5	5	5	5	5	5	5	5		
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		
Ped/Bike/RTOR Volume	5	5	0	5	5	123	5	5	120	5	5	0	
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0	0	0	0	0	0	0	0	0	0		
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		
Phasing	Excl. Left	WB Only	Thru & RT	04			Excl. Left	Thru & RT	07			08	
Timing	G = 4.0	G = 8.0	G = 7.0	G =			G = 11.5	G = 40.0	G =			G =	
	Y = 5.6	Y = 5.6	Y = 6.4	Y =			Y = 5.6	Y = 6.3	Y =			Y =	
Duration of Analysis (hrs) = 0.25							Cycle Length C = 100.0						
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	89	142	283	486	116	228	171	978	824	47	1806		
Lane group cap.	137	248	379	605	731	318	204	2030	1368	395	2015		
v/c ratio	0.65	0.57	0.75	0.80	0.16	0.72	0.84	0.48	0.60	0.12	0.90		
Green ratio	0.04	0.07	0.25	0.18	0.21	0.21	0.12	0.40	0.50	0.12	0.40		
Unif. delay d1	47.3	45.1	34.6	39.5	32.6	37.0	43.3	22.3	17.7	39.7	28.1		
Delay factor k	0.23	0.17	0.30	0.35	0.11	0.28	0.37	0.11	0.19	0.11	0.42		
Increm. delay d2	10.4	3.2	7.9	7.7	0.1	7.6	25.4	0.2	0.8	0.1	5.8		
PF factor	0.972	0.950	0.779	0.858	0.827	0.827	0.913	0.556	0.325	0.913	0.556		
Control delay	56.4	46.0	34.9	41.7	27.1	38.1	64.9	12.6	6.5	36.4	21.3		
Lane group LOS	E	D	C	D	C	D	E	B	A	D	C		
Apprch. delay	41.7			38.6			14.6			21.7			
Approach LOS	D			D			B			C			
Intersec. delay	23.7			Intersection LOS						C			

TABLE 9-3-A
MIT: ADD NB RT0 LANE/ADD WB RT0 LANE.

SHORT REPORT

General Information						Site Information					
Analyst	USAI					Intersection	COLLEGE BLVD.@ VISTA WAY				
Agency or Co.	USAI					Area Type	All other areas				
Date Performed	08/22/12					Jurisdiction	OCEANSIDE-INT#11/WITH MITIGATI				
Time Period	PM PEAK					Analysis Year	BO.ALT.-2/NO PROJECT				

Volume and Timing Input														
			EB			WB			NB			SB		
			LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes			2	2	1	2	2	1	1	3	2	2	3	0
Lane group			L	T	R	L	T	R	L	T	R	L	TR	
Volume (vph)			145	120	330	450	285	425	295	1830	740	45	1305	100
% Heavy veh			2	2	2	2	2	2	2	2	2	2	2	2
PHF			0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)			A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time			2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Ext. eff. green			2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Arrival type			5	5	5	5	5	5	5	5	5	5	5	
Unit Extension			3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume			5	5	10	5	5	65	5	5	0	5	5	0
Lane Width			12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking			N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr														
Bus stops/hr			0	0	0	0	0	0	0	0	0	0	0	
Unit Extension			3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Phasing	Excl. Left	WB Only	Thru & RT		04		Excl. Left		NB Only		Thru & RT		08	
Timing	G = 6.0	G = 9.0	G = 10.0		G =		G = 8.0		G = 6.0		G = 36.1		G =	
	Y = 5.6	Y = 5.6	Y = 6.3		Y =		Y = 5.6		Y = 5.6		Y = 6.2		Y =	
Duration of Analysis (hrs) = 0.25										Cycle Length C = 110.0				

Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	153	126	337	474	300	379	311	1926	779	47	1479	
Lane group cap.	187	322	338	644	793	346	315	2200	1845	250	1645	
v/c ratio	0.82	0.39	1.00	0.74	0.38	1.10	0.99	0.88	0.42	0.19	0.90	
Green ratio	0.05	0.09	0.22	0.19	0.22	0.22	0.18	0.43	0.68	0.07	0.33	
Unif. delay d1	51.5	47.1	42.8	42.1	36.2	42.7	45.1	28.4	8.0	47.9	35.2	
Delay factor k	0.36	0.11	0.50	0.29	0.11	0.50	0.49	0.40	0.11	0.11	0.42	
Increm. delay d2	24.0	0.8	48.1	4.4	0.3	76.5	47.1	4.3	0.2	0.4	7.1	
PF factor	0.962	0.933	0.811	0.846	0.808	0.808	0.855	0.490	0.155	0.948	0.674	
Control delay	73.5	44.8	82.8	40.1	29.6	111.0	85.7	18.2	1.4	45.8	30.8	
Lane group LOS	E	D	F	D	C	F	F	B	A	D	C	
Apprch. delay	72.7			60.6			20.8			31.3		
Approach LOS	E			E			C			C		
Intersec. delay	35.7			Intersection LOS						D		

TABLE 9-3-A
MITIG ADD NB RT LANE / ADD WB RT LANE

SHORT REPORT													
General Information							Site Information						
Analyst	USAI						Intersection	COLLEGE BLVD.@ VISTA WAY					
Agency or Co.	USAI						Area Type	All other areas					
Date Performed	08/22/12						Jurisdiction	OCEANSIDE-INT#11/WITH MITIGATI					
Time Period	PM PEAK						Analysis Year	BO.ALT.-2/WITH PROJECT					
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	2	2	1	2	2	1	1	3	2	2	3	0	
Lane group	L	T	R	L	T	R	L	T	R	L	TR		
Volume (vph)	145	120	343	518	285	425	301	1854	790	45	1354	100	
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		
Arrival type	5	5	5	5	5	5	5	5	5	5	5		
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		
Ped/Bike/RTOR Volume	5	5	10	5	5	65	5	5	0	5	5	0	
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0	0	0	0	0	0	0	0	0	0		
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		
Phasing	Excl. Left	WB Only	Thru & RT	04			Excl. Left	NB Only	Thru & RT	08			
Timing	G = 6.0	G = 9.0	G = 10.0	G =			G = 8.0	G = 6.0	G = 36.1	G =			
	Y = 5.6	Y = 5.6	Y = 6.3	Y =			Y = 5.6	Y = 5.6	Y = 6.2	Y =			
Duration of Analysis (hrs) = 0.25							Cycle Length C = 110.0						
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	153	126	351	545	300	379	317	1952	832	47	1530		
Lane group cap.	187	322	338	644	793	346	315	2200	1845	250	1646		
v/c ratio	0.82	0.39	1.04	0.85	0.38	1.10	1.01	0.89	0.45	0.19	0.93		
Green ratio	0.05	0.09	0.22	0.19	0.22	0.22	0.18	0.43	0.68	0.07	0.33		
Unif. delay d1	51.5	47.1	42.8	43.2	36.2	42.7	45.2	28.7	8.2	47.9	35.7		
Delay factor k	0.36	0.11	0.50	0.38	0.11	0.50	0.50	0.41	0.11	0.11	0.45		
Increm. delay d2	24.0	0.8	59.3	10.2	0.3	76.5	52.3	4.8	0.2	0.4	9.8		
PF factor	0.962	0.933	0.811	0.846	0.808	0.808	0.855	0.490	0.155	0.948	0.674		
Control delay	73.5	44.8	94.0	46.7	29.6	111.0	91.0	18.9	1.5	45.8	33.9		
Lane group LOS	E	D	F	D	C	F	F	B	A	D	C		
Apprch. delay	79.2			62.4			21.6			34.2			
Approach LOS	E			E			C			C			
Intersec. delay	37.8			Intersection LOS						D			

SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	COLLEGE BLVD. @ SR-78EB OFF-RAM					
Agency or Co.	USAI					Area Type	All other areas					
Date Performed	08/24/12					Jurisdiction	OCEANSIDE-INT.#12					
Time Period	AM PEAK					Analysis Year	BO.ALT-2/NO PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	0	1	0	0	0	0	4	0	0	5	0
Lane group	L		R					T			T	
Volume (vph)	640		270					1205			1965	
% Heavy veh	2		2					2			2	
PHF	0.95		0.95					0.95			0.95	
Actuated (P/A)	A		A					A			A	
Startup lost time	2.0		2.0					2.0			2.0	
Ext. eff. green	2.0		2.0					2.0			2.0	
Arrival type	4		4					5			5	
Unit Extension	3.0		3.0					3.0			3.0	
Ped/Bike/RTOR Volume	5		0	5								
Lane Width	12.0		12.0					12.0			12.0	
Parking/Grade/Parking	N	0	N	N		N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0		0					0			0	
Unit Extension	3.0		3.0					3.0			3.0	
Phasing	EB Only	02	03	04	Thru Only	06	07	08				
Timing	G = 26.0	G =	G =	G =	G = 64.0	G =	G =	G =				
	Y = 5	Y =	Y =	Y =	Y = 5	Y =	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 100.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	674		284					1268			2068	
Lane group cap.	894		412					4330			5412	
v/c ratio	0.75		0.69					0.29			0.38	
Green ratio	0.26		0.26					0.64			0.64	
Unif. delay d1	34.1		33.4					8.0			8.6	
Delay factor k	0.31		0.26					0.11			0.11	
Increm. delay d2	3.7		4.8					0.0			0.0	
PF factor	1.000		1.000					0.139			0.139	
Control delay	37.7		38.2					1.1			1.2	
Lane group LOS	D		D					A			A	
Approch. delay	37.9						1.1			1.2		
Approach LOS	D						A			A		
Intersec. delay	9.4			Intersection LOS						A		

SHORT REPORT												
General Information						Site Information						
Analyst USAI Agency or Co. USAI Date Performed 08/24/12 Time Period AM PEAK						Intersection COLLEGE BLVD.@ SR-78EB OFF-RAM Area Type All other areas Jurisdiction OCEANSIDE-INT.#12 Analysis Year BO.ALT-2/WITH PROJECT						
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	0	1	0	0	0	0	4	0	0	5	0
Lane group	L		R					T			T	
Volume (vph)	640		296					1354			2007	
% Heavy veh	2		2					2			2	
PHF	0.95		0.95					0.95			0.95	
Actuated (P/A)	A		A					A			A	
Startup lost time	2.0		2.0					2.0			2.0	
Ext. eff. green	2.0		2.0					2.0			2.0	
Arrival type	4		4					5			5	
Unit Extension	3.0		3.0					3.0			3.0	
Ped/Bike/RTOR Volume	5		0	5								
Lane Width	12.0		12.0					12.0			12.0	
Parking/Grade/Parking	N	0	N	N		N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0		0					0			0	
Unit Extension	3.0		3.0					3.0			3.0	
Phasing	EB Only	02	03	04	Thru Only	06	07	08				
Timing	G = 26.0	G =	G =	G =	G = 64.0	G =	G =	G =				
	Y = 5	Y =	Y =	Y =	Y = 5	Y =	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 100.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	674		312				1425			2113		
Lane group cap.	894		412				4330			5412		
v/c ratio	0.75		0.76				0.33			0.39		
Green ratio	0.26		0.26				0.64			0.64		
Unif. delay d1	34.1		34.1				8.2			8.6		
Delay factor k	0.31		0.31				0.11			0.11		
Increm. delay d2	3.7		7.9				0.0			0.0		
PF factor	1.000		1.000				0.139			0.139		
Control delay	37.7		42.0				1.2			1.2		
Lane group LOS	D		D				A			A		
Approch. delay	39.1						1.2			1.2		
Approach LOS	D						A			A		
Intersec. delay	9.5			Intersection LOS						A		

SHORT REPORT													
General Information						Site Information							
Analyst	USAI					Intersection	COLLEGE BLVD.@ SR-78EB OFF-RAM						
Agency or Co.	USAI					Area Type	All other areas						
Date Performed	08/24/12					Jurisdiction	OCEANSIDE-INT.#12						
Time Period	PM PEAK					Analysis Year	BO.ALT-2/NO PROJECT						
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	2	0	1	0	0	0	0	4	0	0	5	0	
Lane group	L		R					T			T		
Volume (vph)	650		470					2215			1675		
% Heavy veh	2		2					2			2		
PHF	0.95		0.95					0.95			0.95		
Actuated (P/A)	A		A					A			A		
Startup lost time	2.0		2.0					2.0			2.0		
Ext. eff. green	2.0		2.0					2.0			2.0		
Arrival type	4		4					5			5		
Unit Extension	3.0		3.0					3.0			3.0		
Ped/Bike/RTOR Volume	5		0	5									
Lane Width	12.0		12.0					12.0			12.0		
Parking/Grade/Parking	N	0	N	N		N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0		0					0			0		
Unit Extension	3.0		3.0					3.0			3.0		
Phasing	EB Only	02	03	04	Thru Only	06	07	08					
Timing	G = 36.0	G =	G =	G =	G = 54.0	G =	G =	G =					
	Y = 5	Y =	Y =	Y =	Y = 5	Y =	Y =	Y =					
Duration of Analysis (hrs) = 0.25						Cycle Length C = 100.0							
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	684		495					2332			1763		
Lane group cap.	1237		570					3653			4567		
v/c ratio	0.55		0.87					0.64			0.39		
Green ratio	0.36		0.36					0.54			0.54		
Unif. delay d1	25.6		29.8					16.1			13.4		
Delay factor k	0.15		0.40					0.22			0.11		
Increm. delay d2	0.5		13.5					0.4			0.1		
PF factor	0.934		0.934					0.217			0.217		
Control delay	24.4		41.3					3.9			3.0		
Lane group LOS	C		D					A			A		
Apprch. delay	31.5						3.9			3.0			
Approach LOS	C						A			A			
Intersec. delay	9.8			Intersection LOS						A			

SHORT REPORT												
General Information						Site Information						
Analyst	USAI					COLLEGE BLVD.@ SR-78EB OFF-RAM						
Agency or Co.	USAI					Area Type All other areas						
Date Performed	08/24/12					Jurisdiction OCEANSIDE-INT.#12						
Time Period	PM PEAK					Analysis Year BO.ALT-2/WITH PROJECT						
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	0	1	0	0	0	0	4	0	0	5	0
Lane group	L		R					T			T	
Volume (vph)	650		551					2295			1805	
% Heavy veh	2		2					2			2	
PHF	0.95		0.95					0.95			0.95	
Actuated (P/A)	A		A					A			A	
Startup lost time	2.0		2.0					2.0			2.0	
Ext. eff. green	2.0		2.0					2.0			2.0	
Arrival type	4		4					5			5	
Unit Extension	3.0		3.0					3.0			3.0	
Ped/Bike/RTOR Volume	5		0	5								
Lane Width	12.0		12.0					12.0			12.0	
Parking/Grade/Parking	N	0	N	N		N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0		0					0			0	
Unit Extension	3.0		3.0					3.0			3.0	
Phasing	EB Only	02	03	04	Thru Only	06	07	08				
Timing	G = 36.0	G =	G =	G =	G = 54.0	G =	G =	G =				
	Y = 5	Y =	Y =	Y =	Y = 5	Y =	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 100.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	684		580					2416			1900	
Lane group cap.	1237		570					3653			4567	
v/c ratio	0.55		1.02					0.66			0.42	
Green ratio	0.36		0.36					0.54			0.54	
Unif. delay d1	25.6		32.0					16.5			13.6	
Delay factor k	0.15		0.50					0.24			0.11	
Increm. delay d2	0.5		42.2					0.5			0.1	
PF factor	0.934		0.934					0.217			0.217	
Control delay	24.4		72.1					4.0			3.0	
Lane group LOS	C		E					A			A	
Apprch. delay	46.3						4.0			3.0		
Approach LOS	D						A			A		
Intersec. delay	13.3			Intersection LOS						B		

SHORT REPORT												
General Information							Site Information					
Analyst	USAI						Intersection COLLEGE BLVD.@ PLAZA DR.					
Agency or Co.	USAI						Area Type All other areas					
Date Performed	08/25/12						Jurisdiction OCEANSIDE-INT.#13/NO MITIGATIO					
Time Period	AM PEAK						Analysis Year BO.ALT.-2/NO PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	1	0	1	1	1	1	3	0	2	3	0
Lane group	L	TR		L	T	R	L	TR		L	TR	
Volume (vph)	110	55	5	140	30	280	30	910	300	525	1555	155
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Ext. eff. green	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Arrival type	4	4		4	4	4	5	5		5	5	
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	5		0	5	10	0	5	10	56	5	10	0
Lane Width	12.0	12.0		12.0	12.0	12.0	12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0	0	0	0		0	0	
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Phasing	EB Only	WB Only	03	04	Excl. Left	SB Only	Thru & RT	08				
Timing	G = 12.0	G = 8.0	G =	G =	G = 10.0	G = 19.0	G = 31.0	G =				
	Y = 4	Y = 4	Y =	Y =	Y = 4	Y = 4	Y = 4	Y =				
Duration of Analysis (hrs) = 0.25							Cycle Length C = 100.0					
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	116	63		147	32	295	32	1215		553	1800	
Lane group cap.	195	203		122	130	319	159	1466		1100	2645	
v/c ratio	0.59	0.31		1.20	0.25	0.92	0.20	0.83		0.50	0.68	
Green ratio	0.11	0.11		0.07	0.07	0.21	0.09	0.30		0.32	0.53	
Unif. delay d1	42.4	41.0		46.5	44.0	38.7	42.2	32.6		27.6	17.3	
Delay factor k	0.18	0.11		0.50	0.11	0.44	0.11	0.37		0.11	0.25	
Increm. delay d2	4.9	0.9		146.7	1.0	31.6	0.6	4.1		0.4	0.7	
PF factor	1.000	1.000		1.000	1.000	1.000	0.934	0.714		0.686	0.248	
Control delay	47.2	41.9		193.2	45.0	70.4	40.0	27.4		19.3	5.0	
Lane group LOS	D	D		F	D	E	D	C		B	A	
Apprch. delay	45.4			106.8			27.7			8.4		
Approach LOS	D			F			C			A		
Intersec. delay	26.6			Intersection LOS						C		

SHORT REPORT												
General Information							Site Information					
Analyst	USAI						Intersection COLLEGE BLVD.@ PLAZA DR.					
Agency or Co.	USAI						Area Type All other areas					
Date Performed	08/25/12						Jurisdiction OCEANSIDE-INT.#13/NO					
Time Period	AM PEAK						MITIGATION					
							Analysis Year BO.ALT.-2/WITH PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	1	0	1	1	1	1	3	0	2	3	0
Lane group	L	TR		L	T	R	L	TR		L	TR	
Volume (vph)	180	87	55	145	35	280	45	989	336	525	1591	187
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Ext. eff. green	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Arrival type	4	4		4	4	4	5	5		5	5	
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	5		0	5	10	0	5	10	56	5	10	0
Lane Width	12.0	12.0		12.0	12.0	12.0	12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0	0	0	0		0	0	
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Phasing	EB Only	WB Only	03	04	Excl. Left	SB Only	Thru & RT	08				
Timing	G = 12.0	G = 8.0	G =	G =	G = 10.0	G = 19.0	G = 31.0	G =				
	Y = 4	Y = 4	Y =	Y =	Y = 4	Y = 4	Y = 4	Y =				
Duration of Analysis (hrs) = 0.25							Cycle Length C = 100.0					
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	189	150		153	37	295	47	1336		553	1872	
Lane group cap.	195	193		122	130	319	159	1464		1100	2638	
v/c ratio	0.97	0.78		1.25	0.28	0.92	0.30	0.91		0.50	0.71	
Green ratio	0.11	0.11		0.07	0.07	0.21	0.09	0.30		0.32	0.53	
Unif. delay d1	44.3	43.3		46.5	44.1	38.7	42.5	33.7		27.6	17.7	
Delay factor k	0.48	0.33		0.50	0.11	0.44	0.11	0.43		0.11	0.27	
Increm. delay d2	55.4	18.0		164.9	1.2	31.6	1.0	9.0		0.4	0.9	
PF factor	1.000	1.000		1.000	1.000	1.000	0.934	0.714		0.686	0.248	
Control delay	99.7	61.3		211.4	45.3	70.4	40.8	33.1		19.3	5.3	
Lane group LOS	F	E		F	D	E	D	C		B	A	
Approch. delay	82.7			112.9			33.4			8.5		
Approach LOS	F			F			C			A		
Intersec. delay	32.3			Intersection LOS						C		

SHORT REPORT												
General Information							Site Information					
Analyst	USAI						Intersection COLLEGE BLVD.@ PLAZA DR.					
Agency or Co.	USAI						Area Type All other areas					
Date Performed	08/22/12						Jurisdiction OCEANSIDE-INT#13/NO MITIGATION					
Time Period	PM PEAK						Analysis Year BO.ALT.-2/NO PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	1	0	1	1	1	1	3	0	2	3	0
Lane group	L	TR		L	LT	R	L	TR		L	TR	
Volume (vph)	170	115	25	265	20	530	15	1515	385	585	1550	110
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Ext. eff. green	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Arrival type	4	4		4	4	4	5	5		5	5	
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	5		4	5	5	56	5	5	53	5	5	5
Lane Width	12.0	12.0		12.0	12.0	12.0	12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0	0	0	0		0	0	
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Phasing	EB Only	WB Only	03	04	Excl. Left	SB Only	Thru & RT	08				
Timing	G = 12.0	G = 14.0	G =	G =	G = 7.0	G = 10.0	G = 42.2	G =				
	Y = 4.2	Y = 5.6	Y =	Y =	Y = 4.2	Y = 5.2	Y = 5.6	Y =				
Duration of Analysis (hrs) = 0.25			Cycle Length C = 110.0									
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	179	143		153	147	499	16	1944		616	1743	
Lane group cap.	177	182		207	209	558	97	1843		631	2572	
v/c ratio	1.01	0.79		0.74	0.70	0.89	0.16	1.05		0.98	0.68	
Green ratio	0.10	0.10		0.12	0.12	0.36	0.05	0.37		0.18	0.51	
Unif. delay d1	49.5	48.3		46.9	46.6	33.1	49.6	34.4		44.7	20.0	
Delay factor k	0.50	0.33		0.30	0.27	0.42	0.11	0.50		0.48	0.25	
Increm. delay d2	70.6	20.0		13.1	10.2	16.8	0.3	30.1		15.9	0.3	
PF factor	1.000	1.000		1.000	1.000	0.933	0.962	0.601		0.850	0.299	
Control delay	120.1	68.3		60.0	56.8	47.7	48.0	50.7		53.9	6.2	
Lane group LOS	F	E		E	E	D	D	D		D	A	
Apprch. delay	97.1			51.7			50.7			18.7		
Approach LOS	F			D			D			B		
Intersec. delay	39.7			Intersection LOS						D		

SHORT REPORT												
General Information						Site Information						
Analyst Agency or Co. Date Performed Time Period						COLLEGE BLVD.@ PLAZA DR. All other areas OCEANSIDE-INT#13/NO MITIGATION Analysis Year BO.ALT.-2/WITH PROJECT						
USA/ USA/ 08/22/12 PM PEAK												
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	1	0	1	1	1	1	3	0	2	3	0
Lane group	L	TR		L	LT	R	L	TR		L	TR	
Volume (vph)	208	132	52	281	34	530	70	1557	404	585	1561	210
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Ext. eff. green	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Arrival type	4	4		4	4	4	5	5		5	5	
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	5		4	5	5	56	5	5	53	5	5	5
Lane Width	12.0	12.0		12.0	12.0	12.0	12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0	0	0	0		0	0	
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Phasing	EB Only	WB Only	03	04	Excl. Left	SB Only	Thru & RT	08				
Timing	G = 12.0	G = 14.0	G =	G =	G = 7.0	G = 10.0	G = 42.2	G =				
	Y = 4.2	Y = 5.6	Y =	Y =	Y = 4.2	Y = 5.2	Y = 5.6	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 110.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	219	190		163	169	499	74	2008		616	1859	
Lane group cap.	177	179		207	210	558	97	1842		631	2548	
v/c ratio	1.24	1.06		0.79	0.80	0.89	0.76	1.09		0.98	0.73	
Green ratio	0.10	0.10		0.12	0.12	0.36	0.05	0.37		0.18	0.51	
Unif. delay d1	49.5	49.5		47.2	47.3	33.1	51.3	34.4		44.7	20.9	
Delay factor k	0.50	0.50		0.33	0.35	0.42	0.32	0.50		0.48	0.29	
Increm. delay d2	145.7	84.5		18.1	20.0	16.8	11.9	44.3		15.9	0.4	
PF factor	1.000	1.000		1.000	1.000	0.933	0.962	0.601		0.850	0.299	
Control delay	195.2	134.0		65.3	67.3	47.7	61.2	65.0		53.9	6.6	
Lane group LOS	F	F		E	E	D	E	E		D	A	
Apprch. delay	166.7			55.1			64.9			18.4		
Approach LOS	F			E			E			B		
Intersec. delay	50.8			Intersection LOS						D		

TABLE 9-3-A
MIT. ADD NB RTO LANE

SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection COLLEGE BLVD.@ PLAZA DR.						
Agency or Co.	USAI					Area Type All other areas						
Date Performed	08/25/12					Jurisdiction OCEANSIDE-INT.#13/WITH MITIGAT						
Time Period	AM PEAK					Analysis Year BO.ALT.-2/NO PROJECT						
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	1	0	1	1	1	1	3	1	2	3	0
Lane group	L	TR		L	T	R	L	T	R	L	TR	
Volume (vph)	110	55	5	140	30	280	30	910	300	525	1555	155
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	3.0	3.0		3.0	3.0	3.0	3.0	3.0	2.0	3.0	3.0	
Ext. eff. green	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Arrival type	4	4		4	4	4	5	5	5	5	5	
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	5		0	5	10	0	5	10	56	5	10	0
Lane Width	12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0	0	0	0	0	0	0	
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Phasing	EB Only	WB Only	03	04	Excl. Left	SB Only	Thru & RT	08				
Timing	G = 12.0	G = 8.0	G =	G =	G = 10.0	G = 19.0	G = 31.0	G =				
	Y = 4	Y = 4	Y =	Y =	Y = 4	Y = 4	Y = 4	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 100.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	116	63		147	32	295	32	958	257	553	1800	
Lane group cap.	195	203		122	130	319	159	1522	479	1100	2645	
v/c ratio	0.59	0.31		1.20	0.25	0.92	0.20	0.63	0.54	0.50	0.68	
Green ratio	0.11	0.11		0.07	0.07	0.21	0.09	0.30	0.31	0.32	0.53	
Unif. delay d1	42.4	41.0		46.5	44.0	38.7	42.2	30.2	28.6	27.6	17.3	
Delay factor k	0.18	0.11		0.50	0.11	0.44	0.11	0.21	0.14	0.11	0.25	
Increm. delay d2	4.9	0.9		146.7	1.0	31.6	0.6	0.8	1.2	0.4	0.7	
PF factor	1.000	1.000		1.000	1.000	1.000	0.934	0.714	0.700	0.686	0.248	
Control delay	47.2	41.9		193.2	45.0	70.4	40.0	22.4	21.2	19.3	5.0	
Lane group LOS	D	D		F	D	E	D	C	C	B	A	
Apprch. delay	45.4			106.8			22.6			8.4		
Approach LOS	D			F			C			A		
Intersec. delay	25.1			Intersection LOS						C		

TABLE 9-3-4
MIT: ADD NB RTD LANE

SHORT REPORT												
General Information							Site Information					
Analyst	USAI						Intersection COLLEGE BLVD.@ PLAZA DR.					
Agency or Co.	USAI						Area Type All other areas					
Date Performed	08/25/12						Jurisdiction OCEANSIDE-INT.#13/WITH MITIGAT					
Time Period	AM PEAK						Analysis Year BO.ALT.-2/WITH PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	1	0	1	1	1	1	3	1	2	3	0
Lane group	L	TR		L	T	R	L	T	R	L	TR	
Volume (vph)	180	87	55	145	35	280	45	989	336	525	1591	187
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	3.0	3.0		3.0	3.0	3.0	3.0	3.0	2.0	3.0	3.0	
Ext. eff. green	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Arrival type	4	4		4	4	4	5	5	5	5	5	
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	5		0	5	10	0	5	10	56	5	10	0
Lane Width	12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0	0	0	0	0	0	0	
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Phasing	EB Only	WB Only	03	04	Excl. Left	SB Only	Thru & RT	08				
Timing	G = 12.0	G = 8.0	G =	G =	G = 10.0	G = 19.0	G = 31.0	G =				
	Y = 4	Y = 4	Y =	Y =	Y = 4	Y = 4	Y = 4	Y =				
Duration of Analysis (hrs) = 0.25							Cycle Length C = 100.0					
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	189	150		153	37	295	47	1041	295	553	1872	
Lane group cap.	195	193		122	130	319	159	1522	479	1100	2638	
v/c ratio	0.97	0.78		1.25	0.28	0.92	0.30	0.68	0.62	0.50	0.71	
Green ratio	0.11	0.11		0.07	0.07	0.21	0.09	0.30	0.31	0.32	0.53	
Unif. delay d1	44.3	43.3		46.5	44.1	38.7	42.5	30.8	29.4	27.6	17.7	
Delay factor k	0.48	0.33		0.50	0.11	0.44	0.11	0.25	0.20	0.11	0.27	
Increm. delay d2	55.4	18.0		164.9	1.2	31.6	1.0	1.3	2.4	0.4	0.9	
PF factor	1.000	1.000		1.000	1.000	1.000	0.934	0.714	0.700	0.686	0.248	
Control delay	99.7	61.3		211.4	45.3	70.4	40.8	23.3	23.0	19.3	5.3	
Lane group LOS	F	E		F	D	E	D	C	C	B	A	
Apprch. delay	82.7			112.9			23.8			8.5		
Approach LOS	F			F			C			A		
Intersec. delay	29.4			Intersection LOS						C		

TABLE 9-3-A
MIT. & ADD NB RTO LANE

SHORT REPORT												
General Information							Site Information					
Analyst	USAI						Intersection COLLEGE BLVD.@ PLAZA DR.					
Agency or Co.	USAI						Area Type All other areas					
Date Performed	08/22/12						Jurisdiction OCEANSIDE-INT#13/WI					
Time Period	PM PEAK						MITIGATION					
							Analysis Year BO.ALT.-2/NO PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	1	0	1	1	1	1	3	1	2	3	0
Lane group	L	TR		L	LT	R	L	T	R	L	TR	
Volume (vph)	170	115	25	265	20	530	15	1515	385	585	1550	110
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	3.0	3.0		3.0	3.0	3.0	3.0	3.0	2.0	3.0	3.0	
Ext. eff. green	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Arrival type	4	4		4	4	4	5	5	5	5	5	
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	5		4	5	5	56	5	5	53	5	5	5
Lane Width	12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0	0	0	0	0	0	0	
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Phasing	EB Only	WB Only	03	04	Excl. Left	SB Only	Thru & RT	08				
Timing	G = 12.0	G = 14.0	G =	G =	G = 7.0	G = 10.0	G = 42.2	G =				
	Y = 4.2	Y = 5.6	Y =	Y =	Y = 4.2	Y = 5.2	Y = 5.6	Y =				
Duration of Analysis (hrs) = 0.25							Cycle Length C = 110.0					
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	179	143		153	147	499	16	1595	349	616	1743	
Lane group cap.	177	182		207	209	558	97	1900	596	631	2572	
v/c ratio	1.01	0.79		0.74	0.70	0.89	0.16	0.84	0.59	0.98	0.68	
Green ratio	0.10	0.10		0.12	0.12	0.36	0.05	0.37	0.38	0.18	0.51	
Unif. delay d1	49.5	48.3		46.9	46.6	33.1	49.6	31.4	26.9	44.7	20.0	
Delay factor k	0.50	0.33		0.30	0.27	0.42	0.11	0.37	0.18	0.48	0.25	
Increm. delay d2	70.6	20.0		13.1	10.2	16.8	0.3	1.3	0.5	15.9	0.3	
PF factor	1.000	1.000		1.000	1.000	0.933	0.962	0.601	0.585	0.850	0.299	
Control delay	120.1	68.3		60.0	56.8	47.7	48.0	20.1	16.3	53.9	6.2	
Lane group LOS	F	E		E	E	D	D	C	B	D	A	
Apprch. delay	97.1			51.7			19.7			18.7		
Approach LOS	F			D			B			B		
Intersec. delay	28.5			Intersection LOS						C		

TABLE 9-3-A
MIT. & ADD NB RD LANE

SHORT REPORT													
General Information						Site Information							
Analyst	USAI					Intersection	COLLEGE BLVD.@ PLAZA DR.						
Agency or Co.	USAI					Area Type	All other areas						
Date Performed	08/22/12					Jurisdiction	OCEANSIDE-INT#13/WITH MITIGATI						
Time Period	PM PEAK					Analysis Year	BO.ALT.-2/WITH PROJECT						
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	1	1	0	1	1	1	1	3	1	2	3	0	
Lane group	L	TR		L	LT	R	L	T	R	L	TR		
Volume (vph)	208	132	52	281	34	530	70	1557	404	585	1561	210	
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	3.0	3.0		3.0	3.0	3.0	3.0	3.0	2.0	3.0	3.0		
Ext. eff. green	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		
Arrival type	4	4		4	4	4	5	5	5	5	5		
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		
Ped/Bike/RTOR Volume	5		4	5	5	56	5	5	53	5	5	5	
Lane Width	12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0		0	0	0	0	0	0	0	0		
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		
Phasing	EB Only	WB Only	03	04	Excl. Left	SB Only	Thru & RT	08					
Timing	G = 12.0	G = 14.0	G =	G =	G = 7.0	G = 10.0	G = 42.2	G =					
	Y = 4.2	Y = 5.6	Y =	Y =	Y = 4.2	Y = 5.2	Y = 5.6	Y =					
Duration of Analysis (hrs) = 0.25						Cycle Length C = 110.0							
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	219	190		163	169	499	74	1639	369	616	1859		
Lane group cap.	177	179		207	210	558	97	1900	596	631	2548		
v/c ratio	1.24	1.06		0.79	0.80	0.89	0.76	0.86	0.62	0.98	0.73		
Green ratio	0.10	0.10		0.12	0.12	0.36	0.05	0.37	0.38	0.18	0.51		
Unif. delay d1	49.5	49.5		47.2	47.3	33.1	51.3	31.8	27.4	44.7	20.9		
Delay factor k	0.50	0.50		0.33	0.35	0.42	0.32	0.39	0.20	0.48	0.29		
Increm. delay d2	145.7	84.5		18.1	20.0	16.8	11.9	1.6	0.7	15.9	0.4		
PF factor	1.000	1.000		1.000	1.000	0.933	0.962	0.601	0.585	0.850	0.299		
Control delay	195.2	134.0		65.3	67.3	47.7	61.2	20.7	16.7	53.9	6.6		
Lane group LOS	F	F		E	E	D	E	C	B	D	A		
Apprch. delay	166.7			55.1			21.4			18.4			
Approach LOS	F			E			C			B			
Intersec. delay	35.2			Intersection LOS							D		

SHORT REPORT												
General Information							Site Information					
Analyst USA/ Agency or Co. USA/ Date Performed 08/24/12 Time Period AM PEAK							Intersection COLLEGE BLVD.@ MARRON RD. Area Type All other areas Jurisdiction OCEANSIDE-INT.#14 Analysis Year BO.ALT.-2/NO PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	1	1	1	1	1	2	2	1	2	2	0
Lane group	L	T	R	L	T	R	L	T	R	L	T	
Volume (vph)	115	35	100	395	70	350	130	775	240	225	1290	
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Arrival type	4	4	4	4	4	5	5	5	5	5	5	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	5	5	0	5	5	0	5	5	0	5		
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0	0	0	0	0	0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Phasing	Excl. Left	WB Only	Thru & RT	04	Excl. Left	SB Only	Thru & RT	08				
Timing	G = 5.0	G = 20.0	G = 10.0	G =	G = 4.0	G = 6.0	G = 31.0	G =				
	Y = 4	Y = 4	Y = 4	Y =	Y = 4	Y = 4	Y = 4	Y =				
Duration of Analysis (hrs) = 0.25							Cycle Length C = 100.0					
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	125	38	109	429	76	380	141	842	261	245	1402	
Lane group cap.	172	186	276	513	633	653	137	1100	995	481	1454	
v/c ratio	0.73	0.20	0.39	0.84	0.12	0.58	1.03	0.77	0.26	0.51	0.96	
Green ratio	0.05	0.10	0.18	0.29	0.34	0.42	0.04	0.31	0.64	0.14	0.41	
Unif. delay d1	46.8	41.3	36.2	33.3	22.7	22.3	48.0	31.2	7.8	39.8	28.8	
Delay factor k	0.29	0.11	0.11	0.37	0.11	0.17	0.50	0.32	0.11	0.12	0.47	
Increm. delay d2	14.3	0.5	0.9	11.5	0.1	1.3	84.9	3.3	0.1	0.9	15.9	
PF factor	1.000	1.000	1.000	0.993	0.953	0.517	0.972	0.700	0.139	0.891	0.537	
Control delay	61.1	41.9	37.1	44.6	21.7	12.8	131.5	25.1	1.2	36.4	31.3	
Lane group LOS	E	D	D	D	C	B	F	C	A	D	C	
Apprch. delay	48.8			29.0			32.2			32.1		
Approach LOS	D			C			C			C		
Intersec. delay	32.6			Intersection LOS						C		

SHORT REPORT													
General Information							Site Information						
Analyst	USAI						Intersection	COLLEGE BLVD.@					
Agency or Co.	USAI						Area Type	MARRON RD.					
Date Performed	08/24/12						Jurisdiction	All other areas					
Time Period	AM PEAK						Analysis Year	OCEANSIDE-INT.#14					
							BO.ALT.-2/WITH PROJECT						
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	2	1	1	1	1	1	2	2	1	2	2	0	
Lane group	L	T	R	L	T	R	L	T	R	L	T		
Volume (vph)	230	42	147	395	88	352	148	790	240	232	1333		
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2		
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92		
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		
Arrival type	4	4	4	4	4	5	5	5	5	5	5		
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		
Ped/Bike/RTOR Volume	5	5	0	5	5	0	5	5	0	5			
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0	0	0	0	0	0	0	0	0	0		
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		
Phasing	Excl. Left	WB Only	Thru & RT	04			Excl. Left	SB Only	Thru & RT	08			
Timing	G = 10.0	G = 10.0	G = 10.0	G =			G = 8.0	G = 6.0	G = 32.0	G =			
	Y = 4	Y = 4	Y = 4	Y =			Y = 4	Y = 4	Y = 4	Y =			
Duration of Analysis (hrs) = 0.25							Cycle Length C = 100.0						
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	250	46	160	429	96	383	161	859	261	252	1449		
Lane group cap.	344	186	337	425	447	558	275	1135	933	619	1490		
v/c ratio	0.73	0.25	0.47	1.01	0.21	0.69	0.59	0.76	0.28	0.41	0.97		
Green ratio	0.10	0.10	0.22	0.24	0.24	0.36	0.08	0.32	0.60	0.18	0.42		
Unif. delay d1	43.7	41.5	34.0	38.0	30.4	27.2	44.4	30.5	9.6	36.3	28.4		
Delay factor k	0.29	0.11	0.11	0.50	0.11	0.26	0.18	0.31	0.11	0.11	0.48		
Increm. delay d2	7.5	0.7	1.1	46.0	0.2	3.5	3.2	3.0	0.2	0.4	17.1		
PF factor	1.000	1.000	1.000	1.000	1.000	0.625	0.942	0.686	0.125	0.854	0.517		
Control delay	51.2	42.2	35.0	84.0	30.7	20.5	45.0	23.9	1.4	31.4	31.8		
Lane group LOS	D	D	D	F	C	C	D	C	A	C	C		
Approch. delay	44.6			51.6			22.0			31.8			
Approach LOS	D			D			C			C			
Intersec. delay	34.4			Intersection LOS						C			

SHORT REPORT													
General Information							Site Information						
Analyst	USAI						Intersection	COLLEGE BLVD. @ MARRON RD.					
Agency or Co.	USAI						Area Type	All other areas					
Date Performed	08/22/12						Jurisdiction	OCEANSIDE-INT.#14					
Time Period	PM PEAK						Analysis Year	BO.ALT.-2/NO PROJECT					
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	2	1	1	1	1	1	2	2	1	2	2	0	
Lane group	L	T	R	L	T	R	L	T	R	L	T		
Volume (vph)	470	230	210	255	145	310	205	1135	585	435	810		
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2		
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95		
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		
Arrival type	4	4	4	4	4	5	5	5	5	5	5		
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5			
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0	0	0	0	0	0	0	0	0	0		
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		
Phasing	Excl. Left	Thru & RT	03		04		Excl. Left	Thru & RT	07		08		
Timing	G = 19.0	G = 15.5	G =		G =		G = 12.2	G = 31.9	G =		G =		
	Y = 4.6	Y = 5.3	Y =		Y =		Y = 5.3	Y = 5.7	Y =		Y =		
Duration of Analysis (hrs) = 0.25							Cycle Length C = 99.5						
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	495	242	221	268	153	326	216	1195	616	458	853		
Lane group cap.	622	271	495	320	271	495	387	1102	867	387	1102		
v/c ratio	0.80	0.89	0.45	0.84	0.56	0.66	0.56	1.08	0.71	1.18	0.77		
Green ratio	0.18	0.15	0.32	0.18	0.15	0.32	0.11	0.31	0.56	0.11	0.31		
Unif. delay d1	39.0	41.7	26.7	39.3	39.6	29.0	41.8	34.3	16.1	44.1	31.1		
Delay factor k	0.34	0.42	0.11	0.37	0.16	0.23	0.16	0.50	0.27	0.50	0.32		
Increm. delay d2	7.1	28.9	0.6	17.5	2.7	3.2	1.8	53.0	2.7	105.9	3.5		
PF factor	1.000	1.000	0.968	1.000	1.000	0.684	0.915	0.700	0.156	0.915	0.700		
Control delay	46.1	70.6	26.5	56.8	42.3	23.1	40.1	77.0	5.2	146.4	25.3		
Lane group LOS	D	E	C	E	D	C	D	E	A	F	C		
Apprch. delay	47.8			39.1			51.3			67.6			
Approach LOS	D			D			D			E			
Intersec. delay	53.0			Intersection LOS						D			

SHORT REPORT													
General Information							Site Information						
Analyst	USAI						Intersection	COLLEGE BLVD.@					
Agency or Co.	USAI						Area Type	MARRON RD.					
Date Performed	08/22/12						Jurisdiction	All other areas					
Time Period	PM PEAK						Analysis Year	OCEANSIDE-INT.#14					
							BO.ALT.-2/WITH PROJECT						
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	2	1	1	1	1	1	2	2	1	2	2	0	
Lane group	L	T	R	L	T	R	L	T	R	L	T		
Volume (vph)	531	234	235	255	154	318	257	1182	585	439	833		
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2		
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95		
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		
Arrival type	4	4	4	4	4	5	5	5	5	5	5		
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5			
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0	0	0	0	0	0	0	0	0	0		
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		
Phasing	Excl. Left	Thru & RT	03		04		Excl. Left	Thru & RT	07		08		
Timing	G = 19.0	G = 15.5	G =		G =		G = 12.2	G = 31.9	G =		G =		
	Y = 4.6	Y = 5.3	Y =		Y =		Y = 5.3	Y = 5.7	Y =		Y =		
Duration of Analysis (hrs) = 0.25							Cycle Length C = 99.5						
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	559	246	247	268	162	335	271	1244	616	462	877		
Lane group cap.	622	271	495	320	271	495	387	1102	867	387	1102		
v/c ratio	0.90	0.91	0.50	0.84	0.60	0.68	0.70	1.13	0.71	1.19	0.80		
Green ratio	0.18	0.15	0.32	0.18	0.15	0.32	0.11	0.31	0.56	0.11	0.31		
Unif. delay d1	39.9	41.8	27.3	39.3	39.8	29.3	42.5	34.3	16.1	44.1	31.4		
Delay factor k	0.42	0.43	0.11	0.37	0.19	0.25	0.27	0.50	0.27	0.50	0.34		
Increm. delay d2	16.0	31.7	0.8	17.5	3.6	3.7	5.6	69.9	2.7	109.9	4.2		
PF factor	1.000	1.000	0.968	1.000	1.000	0.684	0.915	0.700	0.156	0.915	0.700		
Control delay	55.9	73.6	27.2	56.8	43.4	23.7	44.5	93.9	5.2	150.4	26.1		
Lane group LOS	E	E	C	E	D	C	D	F	A	F	C		
Apprch. delay	53.3			39.5			62.0			69.0			
Approach LOS	D			D			E			E			
Intersec. delay	58.8			Intersection LOS						E			

TABLE 9-3-A
MIT. 1 ADD 2ND NB RT LANE

SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	COLLEGE BLVD.@ MARRON RD.					
Agency or Co.	USAI					Area Type	All other areas					
Date Performed	08/24/12					Jurisdiction	OCEANSIDE-INT.#14/WITH MITIGAT					
Time Period	AM PEAK					Analysis Year	BO.ALT.-2/NO PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	1	1	1	1	1	2	2	2	2	2	0
Lane group	L	T	R	L	T	R	L	T	R	L	T	
Volume (vph)	115	35	100	395	70	350	130	775	240	225	1290	
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Arrival type	4	4	4	4	4	5	5	5	5	5	5	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	5	5	0	5	5	0	5	5	0	5		
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0	0	0	0	0	0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Phasing	Excl. Left	WB Only	Thru & RT	04			Excl. Left	SB Only	Thru & RT	08		
Timing	G = 5.0	G = 20.0	G = 10.0	G =			G = 4.0	G = 6.0	G = 31.0	G =		
	Y = 4	Y = 4	Y = 4	Y =			Y = 4	Y = 4	Y = 4	Y =		
Duration of Analysis (hrs) = 0.25						Cycle Length C = 100.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	125	38	109	429	76	380	141	842	261	245	1402	
Lane group cap.	172	186	276	513	633	653	137	1100	1738	481	1454	
v/c ratio	0.73	0.20	0.39	0.84	0.12	0.58	1.03	0.77	0.15	0.51	0.96	
Green ratio	0.05	0.10	0.18	0.29	0.34	0.42	0.04	0.31	0.64	0.14	0.41	
Unif. delay d1	46.8	41.3	36.2	33.3	22.7	22.3	48.0	31.2	7.2	39.8	28.8	
Delay factor k	0.29	0.11	0.11	0.37	0.11	0.17	0.50	0.32	0.11	0.12	0.47	
Increm. delay d2	14.3	0.5	0.9	11.5	0.1	1.3	84.9	3.3	0.0	0.9	15.9	
PF factor	1.000	1.000	1.000	0.993	0.953	0.517	0.972	0.700	0.139	0.891	0.537	
Control delay	61.1	41.9	37.1	44.6	21.7	12.8	131.5	25.1	1.0	36.4	31.3	
Lane group LOS	E	D	D	D	C	B	F	C	A	D	C	
Apprch. delay	48.8			29.0			32.1			32.1		
Approach LOS	D			C			C			C		
Intersec. delay	32.5			Intersection LOS						C		

TABLE 9-3-A
MUT: ADD 2ND NB RTD LANE

SHORT REPORT												
General Information							Site Information					
Analyst	USAI						COLLEGE BLVD. @					
Agency or Co.	USAI						MARRON RD.					
Date Performed	08/24/12						All other areas					
Time Period	AM PEAK						OCEANSIDE-INT.#14/WITH					
							MITIGAT					
							Analysis Year BO.ALT.-2/WITH PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	1	1	1	1	1	2	2	2	2	2	0
Lane group	L	T	R	L	T	R	L	T	R	L	T	
Volume (vph)	230	42	147	395	88	352	148	790	240	232	1333	
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Arrival type	4	4	4	4	4	5	5	5	5	5	5	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	5	5	0	5	5	0	5	5	0	5		
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0	0	0	0	0	0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Phasing	Excl. Left	WB Only	Thru & RT	04			Excl. Left	SB Only	Thru & RT	08		
Timing	G = 10.0	G = 10.0	G = 10.0	G =			G = 8.0	G = 6.0	G = 32.0	G =		
	Y = 4	Y = 4	Y = 4	Y =			Y = 4	Y = 4	Y = 4	Y =		
Duration of Analysis (hrs) = 0.25							Cycle Length C = 100.0					
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	250	46	160	429	96	383	161	859	261	252	1449	
Lane group cap.	344	186	337	425	447	558	275	1135	1631	619	1490	
v/c ratio	0.73	0.25	0.47	1.01	0.21	0.69	0.59	0.76	0.16	0.41	0.97	
Green ratio	0.10	0.10	0.22	0.24	0.24	0.36	0.08	0.32	0.60	0.18	0.42	
Unif. delay d1	43.7	41.5	34.0	38.0	30.4	27.2	44.4	30.5	8.8	36.3	28.4	
Delay factor k	0.29	0.11	0.11	0.50	0.11	0.26	0.18	0.31	0.11	0.11	0.48	
Increm. delay d2	7.5	0.7	1.1	46.0	0.2	3.5	3.2	3.0	0.0	0.4	17.1	
PF factor	1.000	1.000	1.000	1.000	1.000	0.625	0.942	0.686	0.125	0.854	0.517	
Control delay	51.2	42.2	35.0	84.0	30.7	20.5	45.0	23.9	1.2	31.4	31.8	
Lane group LOS	D	D	D	F	C	C	D	C	A	C	C	
Approch. delay	44.6			51.6			21.9			31.8		
Approach LOS	D			D			C			C		
Intersec. delay	34.4			Intersection LOS						C		

TABLE 9-3-A
MIT: ADD 2ND NB RTD LANE

SHORT REPORT													
General Information							Site Information						
Analyst	USAI						Intersection	COLLEGE BLVD. @ MARRON RD.					
Agency or Co.	USAI						Area Type	All other areas					
Date Performed	08/22/12						Jurisdiction	OCEANSIDE-INT.#14/WITH MITIGAT					
Time Period	PM PEAK						Analysis Year	BO.ALT.-2/NO PROJECT					
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	2	1	1	1	1	1	2	2	2	2	2	0	
Lane group	L	T	R	L	T	R	L	T	R	L	T		
Volume (vph)	470	230	210	255	145	310	205	1135	585	435	810		
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2		
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95		
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		
Arrival type	4	4	4	4	4	5	5	5	5	5	5		
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5			
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0	0	0	0	0	0	0	0	0	0		
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		
Phasing	Excl. Left	Thru & RT	03			04		Excl. Left	Thru & RT	07		08	
Timing	G = 19.0	G = 15.5	G =			G =		G = 12.2	G = 31.9	G =		G =	
	Y = 4.6	Y = 5.3	Y =			Y =		Y = 5.3	Y = 5.7	Y =		Y =	
Duration of Analysis (hrs) = 0.25							Cycle Length C = 99.5						
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	495	242	221	268	153	326	216	1195	616	458	853		
Lane group cap.	622	271	495	320	271	495	387	1102	1513	387	1102		
v/c ratio	0.80	0.89	0.45	0.84	0.56	0.66	0.56	1.08	0.41	1.18	0.77		
Green ratio	0.18	0.15	0.32	0.18	0.15	0.32	0.11	0.31	0.56	0.11	0.31		
Unif. delay d1	39.0	41.7	26.7	39.3	39.6	29.0	41.8	34.3	12.5	44.1	31.1		
Delay factor k	0.34	0.42	0.11	0.37	0.16	0.23	0.16	0.50	0.11	0.50	0.32		
Increm. delay d2	7.1	28.9	0.6	17.5	2.7	3.2	1.8	53.0	0.2	105.9	3.5		
PF factor	1.000	1.000	0.968	1.000	1.000	0.684	0.915	0.700	0.156	0.915	0.700		
Control delay	46.1	70.6	26.5	56.8	42.3	23.1	40.1	77.0	2.1	146.4	25.3		
Lane group LOS	D	E	C	E	D	C	D	E	A	F	C		
Apprch. delay	47.8			39.1			50.3			67.6			
Approach LOS	D			D			D			E			
Intersec. delay	52.7			Intersection LOS						D			

TABLE 9-3-A
MIT: ADD 2ND NB RTD LANE

SHORT REPORT													
General Information							Site Information						
Analyst	USAI						Intersection	COLLEGE BLVD. @ MARRON RD.					
Agency or Co.	USAI						Area Type	All other areas					
Date Performed	08/22/12						Jurisdiction	OCEANSIDE-INT.#14/WITH MITIGAT					
Time Period	PM PEAK						Analysis Year	BO.ALT.-2/WITH PROJECT					
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	2	1	1	1	1	1	2	2	2	2	2	0	
Lane group	L	T	R	L	T	R	L	T	R	L	T		
Volume (vph)	531	234	235	255	154	318	257	1182	585	439	833		
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2		
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95		
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		
Arrival type	4	4	4	4	4	5	5	5	5	5	5		
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5			
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0	0	0	0	0	0	0	0	0	0		
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		
Phasing	Excl. Left	Thru & RT	03			04		Excl. Left	Thru & RT	07		08	
Timing	G = 16.8	G = 15.5	G =			G =		G = 13.3	G = 33.0	G =		G =	
	Y = 4.6	Y = 5.3	Y =			Y =		Y = 5.3	Y = 5.7	Y =		Y =	
Duration of Analysis (hrs) = 0.25							Cycle Length C = 99.5						
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	559	246	247	268	162	335	271	1244	616	462	877		
Lane group cap.	546	271	512	281	271	512	425	1141	1483	425	1141		
v/c ratio	1.02	0.91	0.48	0.95	0.60	0.65	0.64	1.09	0.42	1.09	0.77		
Green ratio	0.16	0.15	0.33	0.16	0.15	0.33	0.12	0.32	0.55	0.12	0.32		
Unif. delay d1	41.9	41.8	26.4	41.5	39.8	28.3	41.5	33.8	13.2	43.6	30.4		
Delay factor k	0.50	0.43	0.11	0.46	0.19	0.23	0.22	0.50	0.11	0.50	0.32		
Increm. delay d2	44.7	31.7	0.7	41.2	3.6	3.0	3.2	54.8	0.2	69.1	3.2		
PF factor	1.000	1.000	0.959	1.000	1.000	0.668	0.906	0.684	0.193	0.906	0.684		
Control delay	86.5	73.6	26.0	82.6	43.4	21.9	40.8	77.8	2.7	108.6	24.0		
Lane group LOS	F	E	C	F	D	C	D	E	A	F	C		
Apprch. delay	69.3			47.7			51.4			53.2			
Approach LOS	E			D			D			D			
Intersec. delay	54.9			Intersection LOS						D			

SHORT REPORT												
General Information							Site Information					
Analyst	USA/						COLLEGE BLVD.@					
Agency or Co.	USA/						CARLSBAD VILL.					
Date Performed	05/01/12						All other areas					
Time Period	AM PEAK						CARLSBAD-INT.#15					
							Analysis Year BO.ALT.-2/NO PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	1	1	1	1	0	1	2	0	1	2	0
Lane group	L	LT	R	L	TR		L	TR		L	TR	
Volume (vph)	400	5	75	5	10	15	65	595	5	5	1380	420
% Heavy veh	1	1	1	1	1	1	1	2	1	1	2	1
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	
Ext. eff. green	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	
Arrival type	4	4	4	4	4		5	5		5	5	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	5	5	0	5	5	0	5	5	0	5	5	150
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0		0	0		0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Phasing	EB Only	EW Perm	03	04	Excl. Left	Thru & RT	07	08				
Timing	G = 17.0	G = 10.0	G =	G =	G = 13.0	G = 60.0	G =	G =				
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 5	Y =	Y =				
Duration of Analysis (hrs) = 0.25			Cycle Length C = 120.0									
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	211	215	79	5	27		68	631		5	1737	
Lane group cap.	405	400	220	147	139		194	1771		194	1725	
v/c ratio	0.52	0.54	0.36	0.03	0.19		0.35	0.36		0.03	1.01	
Green ratio	0.27	0.27	0.14	0.08	0.08		0.11	0.50		0.11	0.50	
Unif. delay d1	36.6	37.7	46.6	50.6	51.2		49.6	18.3		47.8	30.0	
Delay factor k	0.13	0.14	0.11	0.11	0.11		0.11	0.11		0.11	0.50	
Increm. delay d2	1.2	1.4	1.0	0.1	0.7		1.1	0.1		0.1	23.4	
PF factor	1.000	1.000	1.000	1.000	1.000		0.919	0.333		0.919	0.333	
Control delay	37.9	39.1	47.6	50.7	51.9		46.7	6.2		44.0	33.4	
Lane group LOS	D	D	D	D	D		D	A		D	C	
Apprch. delay	39.9			51.7			10.1			33.4		
Approach LOS	D			D			B			C		
Intersec. delay	29.2			Intersection LOS						C		

SHORT REPORT														
General Information						Site Information								
Analyst	USAI					Intersection	COLLEGE BLVD.@							
Agency or Co.	USAI					Area Type	CARLSBAD VILL.							
Date Performed	05/01/12					Jurisdiction	All other areas							
Time Period	AM PEAK					Analysis Year	CARLSBAD-INT.#15							
						BO.ALT.-2/WITH PROJECT								
Volume and Timing Input														
	EB			WB			NB			SB				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
Num. of Lanes	1	1	1	1	1	0	1	2	0	1	2	0		
Lane group	L	LT	R	L	TR		L	TR		L	TR			
Volume (vph)	408	5	75	5	10	15	65	613	5	5	1429	444		
% Heavy veh	1	1	1	1	1	1	1	2	1	1	2	1		
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95		
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A		
Startup lost time	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0			
Ext. eff. green	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0			
Arrival type	4	4	4	4	4		5	5		5	5			
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0			
Ped/Bike/RTOR Volume	5	5	0	5	5	0	5	5	0	5	5	150		
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0			
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N		
Parking/hr														
Bus stops/hr	0	0	0	0	0		0	0		0	0			
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0			
Phasing	EB Only	EW Perm	03		04		Excl. Left		Thru & RT		07		08	
Timing	G = 17.0	G = 10.0	G =		G =		G = 13.0		G = 60.0		G =		G =	
	Y = 5	Y = 5	Y =		Y =		Y = 5		Y = 5		Y =		Y =	
Duration of Analysis (hrs) = 0.25						Cycle Length C = 120.0								
Lane Group Capacity, Control Delay, and LOS Determination														
	EB			WB			NB			SB				
Adj. flow rate	215	219	79	5	27		68	650		5	1813			
Lane group cap.	405	400	220	147	139		194	1771		194	1723			
v/c ratio	0.53	0.55	0.36	0.03	0.19		0.35	0.37		0.03	1.05			
Green ratio	0.27	0.27	0.14	0.08	0.08		0.11	0.50		0.11	0.50			
Unif. delay d1	36.7	37.8	46.6	50.6	51.2		49.6	18.4		47.8	30.0			
Delay factor k	0.13	0.15	0.11	0.11	0.11		0.11	0.11		0.11	0.50			
Increm. delay d2	1.3	1.6	1.0	0.1	0.7		1.1	0.1		0.1	36.9			
PF factor	1.000	1.000	1.000	1.000	1.000		0.919	0.333		0.919	0.333			
Control delay	38.1	39.4	47.6	50.7	51.9		46.7	6.3		44.0	46.9			
Lane group LOS	D	D	D	D	D		D	A		D	D			
Apprch. delay	40.1			51.7			10.1			46.9				
Approach LOS	D			D			B			D				
Intersec. delay	37.2			Intersection LOS						D				

SHORT REPORT												
General Information							Site Information					
Analyst	USAI						Intersection	COLLEGE BLVD.@				
Agency or Co.	USAI						Area Type	CARLSBAD VILL.				
Date Performed	05/01/12						Jurisdiction	All other areas				
Time Period	PM PEAK						Analysis Year	CARLSBAD-INT.#15				
							BO.ALT.-2/NO PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	1	1	1	1	0	1	2	0	1	2	0
Lane group	L	LT	R	L	TR		L	TR		L	TR	
Volume (vph)	425	10	60	5	5	15	155	1555	5	15	950	400
% Heavy veh	1	1	1	1	1	1	1	2	1	1	2	1
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	
Ext. eff. green	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	
Arrival type	4	4	4	4	4		5	5		5	5	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	5	5	0	5	5	0	5	5	0	5	5	150
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0		0	0		0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Phasing	EB Only	EW Perm	03		04		Excl. Left	Thru & RT	07		08	
Timing	G = 17.0	G = 10.0	G =		G =		G = 14.0	G = 59.0	G =		G =	
	Y = 5	Y = 5	Y =		Y =		Y = 5	Y = 5	Y =		Y =	
Duration of Analysis (hrs) = 0.25							Cycle Length C = 120.0					
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	224	234	63	5	21		163	1642		16	1263	
Lane group cap.	410	406	220	147	134		208	1743		208	1682	
v/c ratio	0.55	0.58	0.29	0.03	0.16		0.78	0.94		0.08	0.75	
Green ratio	0.27	0.27	0.14	0.08	0.08		0.12	0.49		0.12	0.49	
Unif. delay d1	36.9	38.1	46.1	50.6	51.1		51.5	28.9		47.2	24.6	
Delay factor k	0.15	0.17	0.11	0.11	0.11		0.33	0.45		0.11	0.31	
Increm. delay d2	1.5	2.0	0.7	0.1	0.5		17.6	10.8		0.2	1.9	
PF factor	1.000	1.000	1.000	1.000	1.000		0.912	0.355		0.912	0.355	
Control delay	38.5	40.2	46.8	50.7	51.6		64.6	21.1		43.2	10.7	
Lane group LOS	D	D	D	D	D		E	C		D	B	
Approch. delay	40.2			51.4			25.0			11.1		
Approach LOS	D			D			C			B		
Intersec. delay	22.5			Intersection LOS						C		

SHORT REPORT													
General Information							Site Information						
Analyst	USAI						Intersection	COLLEGE BLVD. @ CARLSBAD VILL.					
Agency or Co.	USAI						Area Type	All other areas					
Date Performed	05/01/12						Jurisdiction	CARLSBAD-INT.#15					
Time Period	PM PEAK						Analysis Year	BO.ALT.-2/WITH PROJECT					
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	1	1	1	1	1	0	1	2	0	1	2	0	
Lane group	L	LT	R	L	TR		L	TR		L	TR		
Volume (vph)	451	10	60	5	5	15	155	1609	5	15	976	413	
% Heavy veh	1	1	1	1	1	1	1	2	1	1	2	1	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0		
Ext. eff. green	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0		
Arrival type	4	4	4	4	4		5	5		5	5		
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0		
Ped/Bike/RTOR Volume	5	5	0	5	5	0	5	5	0	5	5	150	
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0	0	0	0		0	0		0	0		
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0		
Phasing	EB Only	EW Perm	03	04	Excl. Left	Thru & RT	07	08					
Timing	G = 17.0	G = 10.0	G =	G =	G = 14.0	G = 59.0	G =	G =					
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 5	Y =	Y =					
Duration of Analysis (hrs) = 0.25						Cycle Length C = 120.0							
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	238	248	63	5	21		163	1699		16	1304		
Lane group cap.	410	406	220	147	134		208	1743		208	1682		
v/c ratio	0.58	0.61	0.29	0.03	0.16		0.78	0.97		0.08	0.78		
Green ratio	0.27	0.27	0.14	0.08	0.08		0.12	0.49		0.12	0.49		
Unif. delay d1	37.3	38.5	46.1	50.6	51.1		51.5	29.8		47.2	25.1		
Delay factor k	0.17	0.20	0.11	0.11	0.11		0.33	0.48		0.11	0.32		
Increm. delay d2	2.1	2.7	0.7	0.1	0.5		17.6	15.9		0.2	2.3		
PF factor	1.000	1.000	1.000	1.000	1.000		0.912	0.355		0.912	0.355		
Control delay	39.4	41.2	46.8	50.7	51.6		64.6	26.5		43.2	11.2		
Lane group LOS	D	D	D	D	D		E	C		D	B		
Apprch. delay	41.1			51.4			29.8			11.6			
Approach LOS	D			D			C			B			
Intersec. delay	25.2			Intersection LOS						C			

SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	COLLEGE BLVD.@ CANNON RD.					
Agency or Co.	USAI					Area Type	All other areas					
Date Performed	05/01/12					Jurisdiction	CARLSBAD-INT.#16					
Time Period	AM PEAK					Analysis Year	BO.ALT.-2/NO PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	2	0	2	2	0	2	2	1	2	2	1
Lane group	L	TR		L	TR		L	T	R	L	T	R
Volume (vph)	205	400	50	515	800	50	110	450	550	65	1115	270
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Arrival type	5	5		5	5		5	5	3	5	5	5
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Ped/Bike/RTOR Volume	5		0	5		0	5	5	0	5	5	0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0	0	0	0	0
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Phasing	Excl. Left	WB Only	Thru & RT	04			Excl. Left	Thru & RT	07			08
Timing	G = 11.0	G = 20.0	G = 21.0	G =			G = 17.0	G = 46.0	G =			G =
	Y = 5	Y = 5	Y = 5	Y =			Y = 5	Y = 5	Y =			Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 140.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	216	474		542	895		116	474	579	68	1174	284
Lane group cap.	270	523		884	1155		417	1165	966	417	1165	688
v/c ratio	0.80	0.91		0.61	0.77		0.28	0.41	0.60	0.16	1.01	0.41
Green ratio	0.08	0.15		0.26	0.33		0.12	0.33	0.62	0.12	0.33	0.44
Unif. delay d1	63.4	58.5		45.9	42.3		55.9	36.4	16.0	55.1	47.0	26.6
Delay factor k	0.34	0.43		0.20	0.32		0.11	0.11	0.19	0.11	0.50	0.11
Increm. delay d2	15.6	19.5		1.3	3.4		0.4	0.2	1.0	0.2	28.3	0.4
PF factor	0.943	0.882		0.769	0.674		0.908	0.674	1.000	0.908	0.674	0.470
Control delay	75.4	71.1		36.5	31.9		51.1	24.8	17.0	50.2	59.9	12.9
Lane group LOS	E	E		D	C		D	C	B	D	E	B
Apprch. delay	72.5			33.6			23.6			50.7		
Approach LOS	E			C			C			D		
Intersec. delay	42.2			Intersection LOS						D		

SHORT REPORT												
General Information							Site Information					
Analyst USAI Agency or Co. USAI Date Performed 05/01/12 Time Period AM PEAK							Intersection COLLEGE BLVD.@ CANNON RD. Area Type All other areas Jurisdiction CARLSBAD-INT.#16 Analysis Year BO.ALT.-2/WITH PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	2	0	2	2	0	2	2	1	2	2	1
Lane group	L	TR		L	TR		L	T	R	L	T	R
Volume (vph)	207	400	50	515	800	51	110	463	550	68	1152	277
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Arrival type	5	5		5	5		5	5	3	5	5	5
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Ped/Bike/RTOR Volume	5		0	5		0	5	5	0	5	5	0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0	0	0	0	0
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Phasing	Excl. Left	WB Only	Thru & RT	04			Excl. Left	Thru & RT	07			08
Timing	G = 11.0	G = 20.0	G = 21.0	G =			G = 17.0	G = 46.0	G =			G =
	Y = 5	Y = 5	Y = 5	Y =			Y = 5	Y = 5	Y =			Y =
Duration of Analysis (hrs) = 0.25							Cycle Length C = 140.0					
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	218	474		542	896		116	487	579	72	1213	292
Lane group cap.	270	523		884	1155		417	1165	966	417	1165	688
v/c ratio	0.81	0.91		0.61	0.78		0.28	0.42	0.60	0.17	1.04	0.42
Green ratio	0.08	0.15		0.26	0.33		0.12	0.33	0.62	0.12	0.33	0.44
Unif. delay d1	63.5	58.5		45.9	42.4		55.9	36.6	16.0	55.2	47.0	26.8
Delay factor k	0.35	0.43		0.20	0.33		0.11	0.11	0.19	0.11	0.50	0.11
Increm. delay d2	16.4	19.5		1.3	3.4		0.4	0.2	1.0	0.2	37.7	0.4
PF factor	0.943	0.882		0.769	0.674		0.908	0.674	1.000	0.908	0.674	0.470
Control delay	76.3	71.1		36.5	31.9		51.1	24.9	17.0	50.3	69.4	13.0
Lane group LOS	E	E		D	C		D	C	B	D	E	B
Apprch. delay	72.7			33.7			23.6			58.1		
Approach LOS	E			C			C			E		
Intersec. delay	44.6			Intersection LOS						D		

SHORT REPORT												
General Information						Site Information						
Analyst USAI Agency or Co. USAI Date Performed 05/01/12 Time Period PM PEAK						Intersection COLLEGE BLVD.@ CANNON RD. Area Type All other areas Jurisdiction CARLSBAD-INT.#16 Analysis Year BO.ALT.-2/NO PROJECT						
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	2	0	2	2	0	2	2	1	2	2	1
Lane group	L	TR		L	TR		L	T	R	L	T	R
Volume (vph)	270	600	65	450	600	65	50	1445	600	67	710	210
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Arrival type	5	5		5	5		5	5	3	5	5	5
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Ped/Bike/RTOR Volume	5		0	5		0	5	5	0	5	5	0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0	0	0	0	0
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Phasing	Excl. Left	WB Only	Thru & RT	04			Excl. Left	Thru & RT	07			08
Timing	G = 13.0	G = 9.0	G = 27.0	G =			G = 9.0	G = 57.0	G =			G =
	Y = 5	Y = 5	Y = 5	Y =			Y = 5	Y = 5	Y =			Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 140.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	284	700		474	700		53	1521	632	71	747	221
Lane group cap.	319	674		663	1024		221	1444	989	221	1444	834
v/c ratio	0.89	1.04		0.71	0.68		0.24	1.05	0.64	0.32	0.52	0.26
Green ratio	0.09	0.19		0.19	0.29		0.06	0.41	0.64	0.06	0.41	0.54
Unif. delay d1	62.8	56.5		52.9	43.8		62.2	41.5	15.6	62.6	31.2	17.6
Delay factor k	0.41	0.50		0.28	0.25		0.11	0.50	0.22	0.11	0.12	0.11
Increm. delay d2	19.1	39.5		2.6	1.3		0.4	35.6	1.0	0.6	0.2	0.1
PF factor	0.932	0.841		0.841	0.724		0.954	0.542	1.000	0.954	0.542	0.231
Control delay	77.7	87.0		47.1	33.0		59.8	58.1	16.6	60.3	17.1	4.2
Lane group LOS	E	F		D	C		E	E	B	E	B	A
Apprch. delay	84.3			38.7			46.3			17.3		
Approach LOS	F			D			D			B		
Intersec. delay	46.0			Intersection LOS						D		

SHORT REPORT												
General Information						Site Information						
Analyst USAI						Intersection COLLEGE BLVD.@						
Agency or Co. USAI						CANNON RD.						
Date Performed 05/01/12						Area Type All other areas						
Time Period PM PEAK						Jurisdiction CARLSBAD-INT.#16						
						Analysis Year BO.ALT.-2/WITH PROJECT						
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	2	0	2	2	0	2	2	1	2	2	1
Lane group	L	TR		L	TR		L	T	R	L	T	R
Volume (vph)	278	600	65	450	600	69	50	1486	600	67	730	214
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Arrival type	5	5		5	5		5	5	3	5	5	5
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Ped/Bike/RTOR Volume	5		0	5		0	5	5	0	5	5	0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0	0	0	0	0
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Phasing	Excl. Left	WB Only	Thru & RT	04			Excl. Left	Thru & RT	07			08
Timing	G = 13.0	G = 9.0	G = 27.0	G =			G = 9.0	G = 57.0	G =			G =
	Y = 5	Y = 5	Y = 5	Y =			Y = 5	Y = 5	Y =			Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 140.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	293	700		474	705		53	1564	632	71	768	225
Lane group cap.	319	674		663	1023		221	1444	989	221	1444	834
v/c ratio	0.92	1.04		0.71	0.69		0.24	1.08	0.64	0.32	0.53	0.27
Green ratio	0.09	0.19		0.19	0.29		0.06	0.41	0.64	0.06	0.41	0.54
Unif. delay d1	63.0	56.5		52.9	43.9		62.2	41.5	15.6	62.6	31.4	17.6
Delay factor k	0.44	0.50		0.28	0.26		0.11	0.50	0.22	0.11	0.13	0.11
Increm. delay d2	23.6	39.5		2.6	1.4		0.4	46.5	1.0	0.6	0.3	0.1
PF factor	0.932	0.841		0.841	0.724		0.954	0.542	1.000	0.954	0.542	0.231
Control delay	82.3	87.0		47.1	33.1		59.8	69.0	16.6	60.3	17.3	4.2
Lane group LOS	F	F		D	C		E	E	B	E	B	A
Approch. delay	85.6			38.7			54.1			17.4		
Approach LOS	F			D			D			B		
Intersec. delay	49.4			Intersection LOS						D		

SHORT REPORT													
General Information							Site Information						
Analyst USAI Agency or Co. USAI Date Performed 08/24/12 Time Period AM PEAK							Intersection VISTA WAY@SR78WB OFF- ON RAMPs Area Type All other areas Jurisdiction OCEANSIDE-INT.#17 Analysis Year BO.ALT.-2/NO PROJECT						
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	1	2	1	2	2	0	1	1	1	0	2	0	
Lane group	L	T	R	L	TR		L	LT	R		LTR		
Volume (vph)	90	605	305	275	325	50	515	50	180	45	70	35	
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0		
Ext. eff. green	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0		2.0		
Arrival type	5	5	5	5	5		3	3	3		3		
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0		
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5	10	0	
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0		12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0	0	0	0		0	0	0		0		
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0		
Phasing	Excl. Left	Thru & RT		03		04		SB Only		NB Only		07 08	
Timing	G = 11.0	G = 27.0		G =		G =		G = 9.0		G = 37.0		G =	
	Y = 4	Y = 4		Y =		Y =		Y = 4		Y = 4		Y =	
Duration of Analysis (hrs) = 0.25				Cycle Length C = 100.0									
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	95	637	321	289	395		298	297	189		158		
Lane group cap.	177	922	961	344	898		634	642	557		265		
v/c ratio	0.54	0.69	0.33	0.84	0.44		0.47	0.46	0.34		0.60		
Green ratio	0.10	0.26	0.62	0.10	0.26		0.36	0.36	0.36		0.08		
Unif. delay d1	42.8	33.4	9.1	44.2	30.9		24.7	24.6	23.3		44.4		
Delay factor k	0.14	0.26	0.11	0.38	0.11		0.11	0.11	0.11		0.19		
Increm. delay d2	3.2	2.2	0.2	16.7	0.3		0.6	0.5	0.4		3.6		
PF factor	0.926	0.766	0.132	0.926	0.766		1.000	1.000	1.000		1.000		
Control delay	42.8	27.8	1.4	57.7	24.0		25.2	25.1	23.7		48.1		
Lane group LOS	D	C	A	E	C		C	C	C		D		
Apprch. delay	21.1			38.2			24.8			48.1			
Approach LOS	C			D			C			D			
Intersec. delay	28.2			Intersection LOS						C			

SHORT REPORT													
General Information							Site Information						
Analyst	USAI						Intersection						VISTA WAY@SR78WB OFF-ON RAMP
Agency or Co.	USAI						Area Type						All other areas
Date Performed	08/24/12						Jurisdiction						OCEANSIDE-INT.#17
Time Period	AM PEAK						Analysis Year						BO.ALT.-2/WITH PROJECT
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	1	2	1	2	2	0	1	1	1	0	2	0	
Lane group	L	T	R	L	TR		L	LT	R		LTR		
Volume (vph)	98	617	378	275	329	50	530	50	180	45	70	38	
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0		
Ext. eff. green	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0		2.0		
Arrival type	5	5	5	5	5		3	3	3		3		
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0		
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5	10	0	
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0		12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0	0	0	0		0	0	0		0		
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0		
Phasing	Excl. Left	Thru & RT	03		04		SB Only		NB Only		07 08		
Timing	G = 11.0	G = 27.0	G =		G =		G = 9.0		G = 37.0		G =		
	Y = 4	Y = 4	Y =		Y =		Y = 4		Y = 4		Y =		
Duration of Analysis (hrs) = 0.25						Cycle Length C = 100.0							
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	103	649	398	289	399		446	165	189		161		
Lane group cap.	177	922	961	344	899		634	646	557		265		
v/c ratio	0.58	0.70	0.41	0.84	0.44		0.70	0.26	0.34		0.61		
Green ratio	0.10	0.26	0.62	0.10	0.26		0.36	0.36	0.36		0.08		
Unif. delay d1	43.0	33.5	9.7	44.2	31.0		27.4	22.6	23.3		44.5		
Delay factor k	0.17	0.27	0.11	0.38	0.11		0.27	0.11	0.11		0.19		
Increm. delay d2	4.8	2.5	0.3	16.7	0.4		3.5	0.2	0.4		4.0		
PF factor	0.926	0.766	0.132	0.926	0.766		1.000	1.000	1.000		1.000		
Control delay	44.6	28.1	1.6	57.7	24.1		31.0	22.8	23.7		48.5		
Lane group LOS	D	C	A	E	C		C	C	C		D		
Approch. delay	20.4			38.2			27.5			48.5			
Approach LOS	C			D			C			D			
Intersec. delay	28.4			Intersection LOS						C			

SHORT REPORT													
General Information							Site Information						
Analyst	USAI						Intersection						VISTA WAY@SR78WB OFF-ON RAMP
Agency or Co.	USAI						Area Type						All other areas
Date Performed	08/24/12						Jurisdiction						OCEANSIDE-INT.#17
Time Period	PM PEAK						Analysis Year						BO.ALT.-2/NO PROJECT
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	1	2	1	2	2	0	1	1	1	0	2	0	
Lane group	L	T	R	L	TR		L	LT	R		LTR		
Volume (vph)	85	520	310	350	425	45	665	35	120	65	55	55	
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0		
Ext. eff. green	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0		2.0		
Arrival type	5	5	5	5	5		3	3	3		3		
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0		
Ped/Bike/RTOR Volume	5		0	5	10	0	5	10	0	5	10	0	
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0		12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0	0	0	0		0	0	0		0		
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0		
Phasing	Excl. Left	WB Only	Thru & RT	04			SB Only	NB Only	07			08	
Timing	G = 10.0	G = 10.0	G = 20.0	G =			G = 7.0	G = 43.0	G =			G =	
	Y = 4	Y = 4	Y = 4	Y =			Y = 4	Y = 4	Y =			Y =	
Duration of Analysis (hrs) = 0.25						Cycle Length C = 110.0							
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	89	547	326	368	494		385	352	126		184		
Lane group cap.	145	613	878	719	1043		672	678	592		176		
v/c ratio	0.61	0.89	0.37	0.51	0.47		0.57	0.52	0.21		1.05		
Green ratio	0.08	0.17	0.55	0.21	0.30		0.38	0.38	0.38		0.05		
Unif. delay d1	48.8	44.5	13.7	38.5	31.4		26.9	26.2	22.9		52.0		
Delay factor k	0.20	0.42	0.11	0.12	0.11		0.17	0.12	0.11		0.50		
Increm. delay d2	7.5	15.4	0.3	0.6	0.3		1.2	0.7	0.2		80.3		
PF factor	0.941	0.861	0.170	0.824	0.714		1.000	1.000	1.000		1.000		
Control delay	53.4	53.7	2.6	32.4	22.8		28.1	26.9	23.1		132.3		
Lane group LOS	D	D	A	C	C		C	C	C		F		
Apprch. delay	36.3			26.9			26.9			132.3			
Approach LOS	D			C			C			F			
Intersec. delay	36.8			Intersection LOS						D			

SHORT REPORT													
General Information							Site Information						
Analyst	USAI						Intersection						VISTA WAY@SR78WB OFF-ON RAMP
Agency or Co.	USAI						Area Type						All other areas
Date Performed	08/24/12						Jurisdiction						OCEANSIDE-INT.#17
Time Period	PM PEAK						Analysis Year						BO.ALT.-2/WITH PROJECT
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	1	2	1	2	2	0	1	1	1	0	2	0	
Lane group	L	T	R	L	TR		L	LT	R		LTR		
Volume (vph)	90	526	349	350	438	45	710	35	120	65	55	65	
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0		
Ext. eff. green	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0		2.0		
Arrival type	5	5	5	5	5		3	3	3		3		
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0		
Ped/Bike/RTOR Volume	5		0	5	10	0	5	10	0	5	10	0	
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0		12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0	0	0	0		0	0	0		0		
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0		
Phasing	Excl. Left	WB Only	Thru & RT	04		SB Only	NB Only	07		08			
Timing	G = 10.0	G = 10.0	G = 20.0	G =		G = 7.0	G = 43.0	G =		G =			
	Y = 4	Y = 4	Y = 4	Y =		Y = 4	Y = 4	Y =		Y =			
Duration of Analysis (hrs) = 0.25						Cycle Length C = 110.0							
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	95	554	367	368	508		411	373	126		194		
Lane group cap.	145	613	878	719	1043		672	678	592		175		
v/c ratio	0.66	0.90	0.42	0.51	0.49		0.61	0.55	0.21		1.11		
Green ratio	0.08	0.17	0.55	0.21	0.30		0.38	0.38	0.38		0.05		
Unif. delay d1	49.0	44.6	14.2	38.5	31.6		27.4	26.6	22.9		52.0		
Delay factor k	0.23	0.42	0.11	0.12	0.11		0.20	0.15	0.11		0.50		
Increm. delay d2	10.2	16.9	0.3	0.6	0.4		1.6	1.0	0.2		100.1		
PF factor	0.941	0.861	0.170	0.824	0.714		1.000	1.000	1.000		1.000		
Control delay	56.3	55.3	2.7	32.4	22.9		29.1	27.6	23.1		152.1		
Lane group LOS	E	E	A	C	C		C	C	C		F		
Approch. delay	36.4			26.9			27.6			152.1			
Approach LOS	D			C			C			F			
Intersec. delay	38.4			Intersection LOS						D			

SHORT REPORT													
General Information							Site Information						
Analyst	USAI						Intersection						PLAZA BLVD.@SR-78EB
Agency or Co.	USAI						Area Type						OFF-ON RAM
Date Performed	08/24/12						Jurisdiction						OCEANSIDE-INT.#18
Time Period	AM PEAK						Analysis Year						BO.ALT.-2/no PROJECT
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	2	2	0	1	2	0	1	1	1	1	1	0	
Lane group	L	TR		L	TR		L	LT	R	L	TR		
Volume (vph)	775	220	37	30	345	45	20	5	10	85	10	45	
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0		
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0		
Arrival type	4	4		4	4		3	3	3	3	3		
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0		
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5	10	0	
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0		0	0		0	0	0	0	0		
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0		
Phasing	Excl. Left	EB Only	Thru & RT	04			SB Only	NB Only	07			08	
Timing	G = 5.0	G = 39.0	G = 21.0	G =			G = 10.0	G = 5.0	G =			G =	
	Y = 4	Y = 4	Y = 4	Y =			Y = 4	Y = 4	Y =			Y =	
Duration of Analysis (hrs) = 0.25								Cycle Length C = 100.0					
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	816	271		32	410		12	14	11	89	58		
Lane group cap.	1610	2177		71	695		68	70	57	157	141		
v/c ratio	0.51	0.12		0.45	0.59		0.18	0.20	0.19	0.57	0.41		
Green ratio	0.47	0.63		0.04	0.20		0.04	0.04	0.04	0.09	0.09		
Unif. delay d1	18.4	7.4		46.9	36.3		46.4	46.5	46.4	43.6	43.0		
Delay factor k	0.12	0.11		0.11	0.18		0.11	0.11	0.11	0.16	0.11		
Increm. delay d2	0.3	0.0		4.5	1.3		1.2	1.4	1.7	4.8	1.9		
PF factor	0.810	0.497		1.000	1.000		1.000	1.000	1.000	1.000	1.000		
Control delay	15.2	3.7		51.4	37.6		47.7	47.9	48.1	48.4	44.9		
Lane group LOS	B	A		D	D		D	D	D	D	D		
Apprch. delay	12.3			38.6			47.9			47.0			
Approach LOS	B			D			D			D			
Intersec. delay	22.9			Intersection LOS						C			

SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	PLAZA BLVD.@SR-78EB					
Agency or Co.	USAI					Area Type	OFF-ON RAM					
Date Performed	08/24/12					Jurisdiction	All other areas					
Time Period	AM PEAK					Analysis Year	OCEANSIDE-INT.#18					
						BO.ALT.-2/WITH PROJECT						
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	2	0	1	2	0	1	1	1	1	1	0
Lane group	L	TR		L	TR		L	LT	R	L	TR	
Volume (vph)	816	235	37	30	351	45	24	5	10	85	10	45
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Arrival type	4	4		4	4		3	3	3	3	3	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5	10	0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0	0	0	0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Phasing	Excl. Left	EB Only	Thru & RT	04		SB Only	NB Only		07		08	
Timing	G = 5.0	G = 39.0	G = 21.0	G =		G = 10.0	G = 5.0		G =		G =	
	Y = 4	Y = 4	Y = 4	Y =		Y = 4	Y = 4		Y =		Y =	
Duration of Analysis (hrs) = 0.25						Cycle Length C = 100.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	859	286		32	416		25	5	11	89	58	
Lane group cap.	1610	2180		71	695		68	75	57	157	141	
v/c ratio	0.53	0.13		0.45	0.60		0.37	0.07	0.19	0.57	0.41	
Green ratio	0.47	0.63		0.04	0.20		0.04	0.04	0.04	0.09	0.09	
Unif. delay d1	18.7	7.5		46.9	36.4		46.8	46.2	46.4	43.6	43.0	
Delay factor k	0.14	0.11		0.11	0.19		0.11	0.11	0.11	0.16	0.11	
Increm. delay d2	0.3	0.0		4.5	1.4		3.3	0.4	1.7	4.8	1.9	
PF factor	0.810	0.497		1.000	1.000		1.000	1.000	1.000	1.000	1.000	
Control delay	15.5	3.7		51.4	37.8		50.1	46.6	48.1	48.4	44.9	
Lane group LOS	B	A		D	D		D	D	D	D	D	
Apprch. delay	12.6			38.8			49.1			47.0		
Approach LOS	B			D			D			D		
Intersec. delay	22.9			Intersection LOS						C		

SHORT REPORT													
General Information						Site Information							
Analyst	USAI					Intersection	PLAZA BLVD.@SR-78EB						
Agency or Co.	USAI					Area Type	OFF-ON RAM						
Date Performed	08/24/12					Jurisdiction	All other areas						
Time Period	PM PEAK					Analysis Year	OCEANSIDE-INT.#18						
						BO.ALT.-2/no PROJECT							
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	2	2	0	1	2	0	1	1	1	1	1	0	
Lane group	L	TR		L	TR		L	LT	R	L	TR		
Volume (vph)	740	345	80	115	485	135	165	50	15	170	65	40	
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0		
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0		
Arrival type	5	5		5	5		3	3	3	5	3		
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0		
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5	10	0	
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0		0	0		0	0	0	0	0		
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0		
Phasing	Excl. Left	EB Only	Thru & RT	04	SB Only	NB Only	07	08					
Timing	G = 14.0	G = 26.0	G = 23.0	G =	G = 15.0	G = 12.0	G =	G =					
	Y = 4	Y = 4	Y = 4	Y =	Y = 4	Y = 4	Y =	Y =					
Duration of Analysis (hrs) = 0.25						Cycle Length C = 110.0							
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	779	447		121	653		96	131	16	179	110		
Lane group cap.	1338	1620		209	682		174	179	151	223	220		
v/c ratio	0.58	0.28		0.58	0.96		0.55	0.73	0.11	0.80	0.50		
Green ratio	0.39	0.47		0.12	0.20		0.10	0.10	0.10	0.13	0.13		
Unif. delay d1	26.4	17.6		45.9	43.5		47.2	48.1	45.0	46.7	44.7		
Delay factor k	0.17	0.11		0.17	0.47		0.15	0.29	0.11	0.35	0.11		
Increm. delay d2	0.7	0.1		4.0	24.4		3.8	14.3	0.3	18.8	1.8		
PF factor	0.572	0.402		0.911	0.833		1.000	1.000	1.000	0.903	1.000		
Control delay	15.8	7.2		45.8	60.7		50.9	62.3	45.3	60.9	46.5		
Lane group LOS	B	A		D	E		D	E	D	E	D		
Approch. delay	12.6			58.3			56.7			55.4			
Approach LOS	B			E			E			E			
Intersec. delay	35.7			Intersection LOS						D			

SHORT REPORT												
General Information							Site Information					
Analyst	USA/						PLAZA BLVD.@SR-78EB					
Agency or Co.	USA/						OFF-ON RAM					
Date Performed	08/24/12						Area Type					
Time Period	PM PEAK						All other areas					
							Jurisdiction					
							OCEANSIDE-INT.#18					
							Analysis Year					
							BO.ALT.-2/WITH PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	2	0	1	2	0	1	1	1	1	1	0
Lane group	L	TR		L	TR		L	LT	R	L	TR	
Volume (vph)	762	353	86	115	502	135	178	50	15	170	65	40
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Arrival type	5	5		5	5		3	3	3	5	3	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5	10	0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0	0	0	0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Phasing	Excl. Left	EB Only	Thru & RT	04		SB Only	NB Only		07		08	
Timing	G = 14.0	G = 26.0	G = 23.0	G =		G = 15.0	G = 12.0		G =		G =	
	Y = 4	Y = 4	Y = 4	Y =		Y = 4	Y = 4		Y =		Y =	
Duration of Analysis (hrs) = 0.25						Cycle Length C = 110.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	802	463		121	670		103	137	16	179	110	
Lane group cap.	1338	1617		209	682		174	179	151	223	220	
v/c ratio	0.60	0.29		0.58	0.98		0.59	0.77	0.11	0.80	0.50	
Green ratio	0.39	0.47		0.12	0.20		0.10	0.10	0.10	0.13	0.13	
Unif. delay d1	26.6	17.7		45.9	43.8		47.4	48.2	45.0	46.7	44.7	
Delay factor k	0.19	0.11		0.17	0.49		0.18	0.32	0.11	0.35	0.11	
Increm. delay d2	0.8	0.1		4.0	30.0		5.3	17.8	0.3	18.8	1.8	
PF factor	0.572	0.402		0.911	0.833		1.000	1.000	1.000	0.903	1.000	
Control delay	16.0	7.2		45.8	66.5		52.7	66.0	45.3	60.9	46.5	
Lane group LOS	B	A		D	E		D	E	D	E	D	
Apprch. delay	12.8			63.3			59.4			55.4		
Approach LOS	B			E			E			E		
Intersec. delay	37.5			Intersection LOS						D		

SHORT REPORT													
General Information						Site Information							
Analyst	USAI					Intersection	LAKE BLVD.@THUNDER DR.						
Agency or Co.	USAI					Area Type	All other areas						
Date Performed	08/24/12					Jurisdiction	OCEANSIDE-INT.#19						
Time Period	AM PEAK					Analysis Year	BO.ALT.-2/NO PROJECT						
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	1	2	0	1	2	0	1	1	0	1	1	0	
Lane group	L	TR		L	TR		L	TR		L	TR		
Volume (vph)	150	270	10	5	530	90	5	5	5	60	5	200	
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2	
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	3.0	3.0		3.0	3.0		2.0	3.0		3.0	3.0		
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0		
Arrival type	3	3		3	3		3	3		3	3		
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0		
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5		0	5		0	
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0		0	0		0	0		0	0		
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0		
Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08					
Timing	G = 13.0	G = 42.0	G =	G =	G = 8.0	G = 19.1	G =	G =					
	Y = 4.2	Y = 5.3	Y =	Y =	Y = 4.2	Y = 4.2	Y =	Y =					
Duration of Analysis (hrs) = 0.25						Cycle Length C = 100.0							
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	163	304		5	674		5	10		65	222		
Lane group cap.	212	1444		212	1415		142	312		124	288		
v/c ratio	0.77	0.21		0.02	0.48		0.04	0.03		0.52	0.77		
Green ratio	0.12	0.41		0.12	0.41		0.08	0.18		0.07	0.18		
Unif. delay d1	42.7	19.0		38.8	21.6		42.4	33.7		44.9	39.0		
Delay factor k	0.32	0.11		0.11	0.11		0.11	0.11		0.13	0.32		
Increm. delay d2	15.7	0.1		0.0	0.3		0.1	0.0		4.0	12.1		
PF factor	1.000	1.000		1.000	1.000		1.000	1.000		1.000	1.000		
Control delay	58.3	19.1		38.9	21.9		42.5	33.8		48.9	51.1		
Lane group LOS	E	B		D	C		D	C		D	D		
Apprch. delay	32.8			22.0			36.7			50.6			
Approach LOS	C			C			D			D			
Intersec. delay	31.3			Intersection LOS						C			

SHORT REPORT												
General Information							Site Information					
Analyst	USAI						Intersection LAKE BLVD.@THUNDER DR.					
Agency or Co.	USAI						Area Type All other areas					
Date Performed	08/24/12						Jurisdiction OCEANSIDE-INT.#19					
Time Period	AM PEAK						Analysis Year BO.ALT.-2/WITH PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	2	0	1	2	0	1	1	0	1	1	0
Lane group	L	TR		L	TR		L	TR		L	TR	
Volume (vph)	152	284	10	5	535	90	5	5	5	60	5	201
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	3.0	3.0		3.0	3.0		2.0	3.0		3.0	3.0	
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Arrival type	3	3		3	3		3	3		3	3	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5		0	5		0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0		0	0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08				
Timing	G = 13.0	G = 42.0	G =	G =	G = 8.0	G = 19.1	G =	G =				
	Y = 4.2	Y = 5.3	Y =	Y =	Y = 4.2	Y = 4.2	Y =	Y =				
Duration of Analysis (hrs) = 0.25							Cycle Length C = 100.0					
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	165	320		5	680		5	10		65	223	
Lane group cap.	212	1445		212	1416		142	312		124	288	
v/c ratio	0.78	0.22		0.02	0.48		0.04	0.03		0.52	0.77	
Green ratio	0.12	0.41		0.12	0.41		0.08	0.18		0.07	0.18	
Unif. delay d1	42.7	19.1		38.8	21.7		42.4	33.7		44.9	39.0	
Delay factor k	0.33	0.11		0.11	0.11		0.11	0.11		0.13	0.32	
Increm. delay d2	16.7	0.1		0.0	0.3		0.1	0.0		4.0	12.4	
PF factor	1.000	1.000		1.000	1.000		1.000	1.000		1.000	1.000	
Control delay	59.4	19.2		38.9	21.9		42.5	33.8		48.9	51.4	
Lane group LOS	E	B		D	C		D	C		D	D	
Apprch. delay	32.9			22.1			36.7			50.8		
Approach LOS	C			C			D			D		
Intersec. delay	31.4			Intersection LOS						C		

SHORT REPORT												
General Information						Site Information						
Analyst Agency or Co. Date Performed Time Period						Intersection Area Type Jurisdiction Analysis Year						
USA/ USA/ 08/24/12 PM PEAK						LAKE BLVD.@THUNDER DR. All other areas OCEANSIDE-INT.#19 BO.ALT.-2/NO PROJECT						
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	2	0	1	2	0	1	1	0	1	1	0
Lane group	L	TR		L	TR		L	TR		L	TR	
Volume (vph)	275	820	15	10	500	110	5	5	5	135	5	135
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Arrival type	3	3		3	3		3	3		3	3	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5		0	5		0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0		0	0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Phasing	Excl. Left	EW Perm	Thru & RT	04			Excl. Left	Thru & RT	07			08
Timing	G = 4.0	G = 15.0	G = 40.0	G =			G = 13.0	G = 14.8	G =			G =
	Y = 4.2	Y = 5.3	Y = 5.3	Y =			Y = 4.2	Y = 4.2	Y =			Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 110.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	299	907		11	663		5	10		147	152	
Lane group cap.	357	1906		116	1215		193	216		193	200	
v/c ratio	0.84	0.48		0.09	0.55		0.03	0.05		0.76	0.76	
Green ratio	0.20	0.54		0.20	0.35		0.11	0.13		0.11	0.13	
Unif. delay d1	42.2	15.7		37.0	28.4		43.8	42.3		47.6	46.5	
Delay factor k	0.37	0.11		0.11	0.15		0.11	0.11		0.31	0.31	
Increm. delay d2	15.9	0.2		0.4	0.5		0.1	0.1		16.3	15.6	
PF factor	1.000	1.000		1.000	1.000		1.000	1.000		1.000	1.000	
Control delay	58.1	15.9		37.3	28.9		43.8	42.4		63.9	62.1	
Lane group LOS	E	B		D	C		D	D		E	E	
Apprch. delay	26.4			29.1			42.9			63.0		
Approach LOS	C			C			D			E		
Intersec. delay	32.3			Intersection LOS						C		

SHORT REPORT													
General Information							Site Information						
Analyst	USAI						Intersection						LAKE BLVD.@THUNDER
Agency or Co.	USAI						Area Type						All other areas
Date Performed	08/24/12						Jurisdiction						OCEANSIDE-INT.#19
Time Period	PM PEAK						Analysis Year						BO.ALT.-2/WITH PROJECT
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	1	2	0	1	2	0	1	1	0	1	1	0	
Lane group	L	TR		L	TR		L	TR		L	TR		
Volume (vph)	276	827	15	10	515	110	5	5	5	135	5	137	
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2	
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0		
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0		
Arrival type	3	3		3	3		3	3		3	3		
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0		
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5		0	5		0	
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0		0	0		0	0		0	0		
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0		
Phasing	Excl. Left	EW Perm	Thru & RT	04			Excl. Left	Thru & RT	07			08	
Timing	G = 4.0	G = 15.0	G = 40.0	G =			G = 13.0	G = 14.8	G =			G =	
	Y = 4.2	Y = 5.3	Y = 5.3	Y =			Y = 4.2	Y = 4.2	Y =			Y =	
Duration of Analysis (hrs) = 0.25						Cycle Length C = 110.0							
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	300	915		11	680		5	10		147	154		
Lane group cap.	357	1906		116	1216		193	216		193	200		
v/c ratio	0.84	0.48		0.09	0.56		0.03	0.05		0.76	0.77		
Green ratio	0.20	0.54		0.20	0.35		0.11	0.13		0.11	0.13		
Unif. delay d1	42.2	15.8		36.8	28.6		43.8	42.3		47.6	46.6		
Delay factor k	0.38	0.11		0.11	0.16		0.11	0.11		0.31	0.32		
Increm. delay d2	16.3	0.2		0.4	0.6		0.1	0.1		16.3	16.6		
PF factor	1.000	1.000		1.000	1.000		1.000	1.000		1.000	1.000		
Control delay	58.4	16.0		37.2	29.2		43.8	42.4		63.9	63.2		
Lane group LOS	E	B		D	C		D	D		E	E		
Apprch. delay	26.4			29.3			42.9			63.5			
Approach LOS	C			C			D			E			
Intersec. delay	32.5			Intersection LOS						C			

SHORT REPORT												
General Information							Site Information					
Analyst	USAI						COLLEGE BLVD.@					
Agency or Co.	USAI						WARING RD.					
Date Performed	08/24/12						All other areas					
Time Period	AM PEAK						OCEANSIDE-INT#20/					
							BUILDOUT ALT.#2-AM/NO					
							PROJEC					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	1	1	1	1	0	2	2	1	1	2	1
Lane group		LT	R	L	TR		L	T	R	L	T	R
Volume (vph)	30	35	180	110	50	45	440	670	200	75	1455	140
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time		2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Ext. eff. green		2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Arrival type		4	4	4	4		5	5	5	5	5	5
Unit Extension		3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Ped/Bike/RTOR Volume	5	5	0	5	5	0	5	5	0	5	5	0
Lane Width		12.0	12.0	12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr		0	0	0	0		0	0	0	0	0	0
Unit Extension		3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Phasing	EB Only	WB Only	03		04		Excl. Left		Thru & RT		07	08
Timing	G = 14.0	G = 7.0	G =		G =		G = 15.1		G = 44.0		G =	G =
	Y = 4.6	Y = 4	Y =		Y =		Y = 4.6		Y = 6.7		Y =	Y =
Duration of Analysis (hrs) = 0.25									Cycle Length C = 100.0			
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate		71	196	120	103		478	728	217	82	1582	152
Lane group cap.		254	449	121	118		519	1561	676	267	1561	684
v/c ratio		0.28	0.44	0.99	0.87		0.92	0.47	0.32	0.31	1.01	0.22
Green ratio		0.14	0.29	0.07	0.07		0.15	0.44	0.44	0.15	0.44	0.44
Unif. delay d1		38.5	28.8	46.5	46.1		41.9	19.7	18.3	37.8	28.0	17.4
Delay factor k		0.11	0.11	0.49	0.40		0.44	0.11	0.11	0.11	0.50	0.11
Increm. delay d2		0.6	0.7	79.1	46.4		21.9	0.2	0.3	0.7	26.2	0.2
PF factor		1.000	0.993	1.000	1.000		0.881	0.476	0.476	0.881	0.476	0.476
Control delay		39.1	29.3	125.6	92.4		58.8	9.6	9.0	34.0	39.5	8.4
Lane group LOS		D	C	F	F		E	A	A	C	D	A
Apprch. delay		31.9			110.3		26.0			36.6		
Approach LOS		C			F		C			D		
Intersec. delay		36.7			Intersection LOS						D	

SHORT REPORT												
General Information							Site Information					
Analyst	USAI						COLLEGE BLVD.@					
Agency or Co.	USAI						WARING RD.					
Date Performed	08/24/12						Area Type					
Time Period	AM PEAK						All other areas					
							Jurisdiction					
							OCEANSIDE-INT#20/					
							BUILDOUT ALT.#2-					
							AM/WITH PROJEC					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	1	1	1	1	0	2	2	1	1	2	1
Lane group		LT	R	L	TR		L	T	R	L	T	R
Volume (vph)	30	35	184	110	50	45	450	704	200	75	1467	140
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time		2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Ext. eff. green		2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Arrival type		4	4	4	4		5	5	5	5	5	5
Unit Extension		3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Ped/Bike/RTOR Volume	5	5	0	5	5	0	5	5	0	5	5	0
Lane Width		12.0	12.0	12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr		0	0	0	0		0	0	0	0	0	0
Unit Extension		3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Phasing	EB Only	WB Only	03	04	Excl. Left	Thru & RT	07	08				
Timing	G = 14.0	G = 7.0	G =	G =	G = 15.1	G = 44.0	G =	G =				
	Y = 4.6	Y = 4	Y =	Y =	Y = 4.6	Y = 6.7	Y =	Y =				
Duration of Analysis (hrs) = 0.25			Cycle Length C = 100.0									
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate		71	200	120	103		489	765	217	82	1595	152
Lane group cap.		254	449	121	118		519	1561	676	267	1561	684
v/c ratio		0.28	0.45	0.99	0.87		0.94	0.49	0.32	0.31	1.02	0.22
Green ratio		0.14	0.29	0.07	0.07		0.15	0.44	0.44	0.15	0.44	0.44
Unif. delay d1		38.5	28.9	46.5	46.1		42.0	20.0	18.3	37.8	28.0	17.4
Delay factor k		0.11	0.11	0.49	0.40		0.45	0.11	0.11	0.11	0.50	0.11
Increm. delay d2		0.6	0.7	79.1	46.4		25.8	0.2	0.3	0.7	28.4	0.2
PF factor		1.000	0.993	1.000	1.000		0.881	0.476	0.476	0.881	0.476	0.476
Control delay		39.1	29.4	125.6	92.4		62.9	9.8	9.0	34.0	41.8	8.4
Lane group LOS		D	C	F	F		E	A	A	C	D	A
Apprch. delay		31.9			110.3		27.3			38.7		
Approach LOS		C			F		C			D		
Intersec. delay		38.0			Intersection LOS						D	

SHORT REPORT												
General Information							Site Information					
Analyst	USAI						COLLEGE BLVD. @					
Agency or Co.	USAI						WARING RD.					
Date Performed	08/24/12						Area Type					
Time Period	PM PEAK						All other areas					
							Jurisdiction					
							OCEANSIDE-INT#20PM					
							Analysis Year					
							BUILDOUT ALT.#2-PM/NO					
							PROJEC					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	1	1	1	1	0	2	2	1	1	2	1
Lane group		LT	R	L	TR		L	T	R	L	T	R
Volume (vph)	105	55	390	130	55	120	380	1855	165	70	960	80
% Heavy veh	1	1	1	1	1	1	1	2	1	1	2	1
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time		2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Ext. eff. green		2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Arrival type		4	4	4	4		5	5	5	5	5	5
Unit Extension		3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Ped/Bike/RTOR Volume	5	5	0	5	5	0	5	5	0	5	5	0
Lane Width		12.0	12.0	12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr		0	0	0	0		0	0	0	0	0	0
Unit Extension		3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Phasing	EB Only	WB Only	03		04		Excl. Left	NB Only	Thru & RT		08	
Timing	G = 12.0	G = 10.0	G =		G =		G = 10.0	G = 11.1	G = 42.0		G =	
	Y = 4.6	Y = 4	Y =		Y =		Y = 4.6	Y = 5	Y = 6.7		Y =	
Duration of Analysis (hrs) = 0.25								Cycle Length C = 110.0				
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate		174	424	141	190		413	2016	179	76	1043	87
Lane group cap.		197	532	160	149		811	1873	821	162	1354	599
v/c ratio		0.88	0.80	0.88	1.28		0.51	1.08	0.22	0.47	0.77	0.15
Green ratio		0.11	0.34	0.09	0.09		0.23	0.53	0.53	0.09	0.38	0.38
Unif. delay d1		48.3	32.7	49.4	50.0		36.7	25.9	13.8	47.5	29.8	22.3
Delay factor k		0.41	0.34	0.41	0.50		0.12	0.50	0.11	0.11	0.32	0.11
Increm. delay d2		34.2	8.3	39.2	165.7		0.5	44.8	0.1	2.1	2.8	0.1
PF factor		1.000	0.950	1.000	1.000		0.797	0.254	0.254	0.933	0.588	0.588
Control delay		82.5	39.4	88.6	215.7		29.8	51.3	3.6	46.5	20.3	13.2
Lane group LOS		F	D	F	F		C	D	A	D	C	B
Apprch. delay	51.9			161.6			44.6			21.4		
Approach LOS	D			F			D			C		
Intersec. delay	47.8			Intersection LOS						D		

SHORT REPORT												
General Information							Site Information					
Analyst	USAI						COLLEGE BLVD.@					
Agency or Co.	USAI						WARING RD.					
Date Performed	08/23/12						All other areas					
Time Period	PM PEAK						OCEANSIDE-INT#20PM					
							BUILDOUT ALT.#2- PM/WITH PROJEC					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	1	1	1	1	0	2	2	1	1	2	1
Lane group		LT	R	L	TR		L	T	R	L	T	R
Volume (vph)	105	55	401	130	55	120	386	1873	165	70	978	80
% Heavy veh	1	1	1	1	1	1	1	2	1	1	2	1
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time		2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Ext. eff. green		2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Arrival type		4	4	4	4		5	5	5	5	5	5
Unit Extension		3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Ped/Bike/RTOR Volume	5	5	0	5	5	0	5	5	0	5	5	0
Lane Width		12.0	12.0	12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr		0	0	0	0		0	0	0	0	0	0
Unit Extension		3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Phasing	EB Only	WB Only	03		04		Excl. Left	NB Only	Thru & RT		08	
Timing	G = 12.0	G = 10.0	G =		G =		G = 10.0	G = 11.1	G = 42.0		G =	
	Y = 4.6	Y = 4	Y =		Y =		Y = 4.6	Y = 5	Y = 6.7		Y =	
Duration of Analysis (hrs) = 0.25							Cycle Length C = 110.0					
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate		174	436	141	190		420	2036	179	76	1063	87
Lane group cap.		197	532	160	149		811	1873	821	162	1354	599
v/c ratio		0.88	0.82	0.88	1.28		0.52	1.09	0.22	0.47	0.79	0.15
Green ratio		0.11	0.34	0.09	0.09		0.23	0.53	0.53	0.09	0.38	0.38
Unif. delay d1		48.3	33.0	49.4	50.0		36.7	25.9	13.8	47.5	30.0	22.3
Delay factor k		0.41	0.36	0.41	0.50		0.12	0.50	0.11	0.11	0.33	0.11
Increm. delay d2		34.2	9.8	39.2	165.7		0.6	48.8	0.1	2.1	3.1	0.1
PF factor		1.000	0.950	1.000	1.000		0.797	0.267	0.254	0.933	0.588	0.588
Control delay		82.5	41.2	88.6	215.7		29.9	55.7	3.6	46.5	20.8	13.2
Lane group LOS		F	D	F	F		C	E	A	D	C	B
Apprch. delay		53.0			161.6		48.1			21.8		
Approach LOS		D			F		D			C		
Intersec. delay		49.8			Intersection LOS						D	

TABLE 9-3-A
WITH MIT: 3 NB THROUGH LANES

SHORT REPORT												
General Information						Site Information						
Analyst USAI Agency or Co. USAI Date Performed 08/24/12 Time Period AM PEAK						Intersection COLLEGE BLVD.@ Area Type WARING RD. All other areas Jurisdiction OCEANSIDE-INT#20/WITH MIT. Analysis Year BUILDOUT ALT.#2-AM/NO PROJEC						
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	1	1	1	1	0	2	3	0	1	2	1
Lane group		LT	R	L	TR		L	TR		L	T	R
Volume (vph)	30	35	180	110	50	45	440	670	200	75	1455	140
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time		2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	2.0
Ext. eff. green		2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	2.0
Arrival type		4	4	4	4		5	5		5	5	5
Unit Extension		3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Ped/Bike/RTOR Volume	5	5	0	5	5	0	5	5	0	5	5	0
Lane Width		12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr		0	0	0	0		0	0		0	0	0
Unit Extension		3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Phasing	EB Only	WB Only	03	04	Excl. Left	Thru & RT	07	08				
Timing	G = 14.0	G = 7.0	G =	G =	G = 15.1	G = 44.0	G =	G =				
	Y = 4.6	Y = 4	Y =	Y =	Y = 4.6	Y = 6.7	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 100.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate		71	196	120	103		478	945		82	1582	152
Lane group cap.		254	449	121	118		519	2141		267	1561	684
v/c ratio		0.28	0.44	0.99	0.87		0.92	0.44		0.31	1.01	0.22
Green ratio		0.14	0.29	0.07	0.07		0.15	0.44		0.15	0.44	0.44
Unif. delay d1		38.5	28.8	46.5	46.1		41.9	19.5		37.8	28.0	17.4
Delay factor k		0.11	0.11	0.49	0.40		0.44	0.11		0.11	0.50	0.11
Increm. delay d2		0.6	0.7	79.1	46.4		21.9	0.1		0.7	26.2	0.2
PF factor		1.000	0.993	1.000	1.000		0.881	0.476		0.881	0.476	0.476
Control delay		39.1	29.3	125.6	92.4		58.8	9.4		34.0	39.5	8.4
Lane group LOS		D	C	F	F		E	A		C	D	A
Apprch. delay		31.9			110.3		26.0			36.6		
Approach LOS		C			F		C			D		
Intersec. delay		36.6			Intersection LOS						D	

TABLE 9-3-A
WITH MT: 3NR THROUGH LANES

SHORT REPORT												
General Information						Site Information						
Analyst USAI Agency or Co. USAI Date Performed 08/24/12 Time Period AM PEAK						Intersection COLLEGE BLVD.@ WARING RD. Area Type All other areas Jurisdiction OCEANSIDE-INT#20/WITH MIT. Analysis Year BUILDOUT ALT.#2- AM/WITH PROJEC						
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	1	1	1	1	0	2	3	0	1	2	1
Lane group		LT	R	L	TR		L	TR		L	T	R
Volume (vph)	30	35	184	110	50	45	450	704	200	75	1467	140
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time		2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	2.0
Ext. eff. green		2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	2.0
Arrival type		4	4	4	4		5	5		5	5	5
Unit Extension		3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Ped/Bike/RTOR Volume	5	5	0	5	5	0	5	5	0	5	5	0
Lane Width		12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr		0	0	0	0		0	0		0	0	0
Unit Extension		3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Phasing	EB Only	WB Only	03	04	Excl. Left	Thru & RT	07	08				
Timing	G = 14.0	G = 7.0	G =	G =	G = 15.1	G = 44.0	G =	G =				
	Y = 4.6	Y = 4	Y =	Y =	Y = 4.6	Y = 6.7	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 100.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate		71	200	120	103		489	982		82	1595	152
Lane group cap.		254	449	121	118		519	2145		267	1561	684
v/c ratio		0.28	0.45	0.99	0.87		0.94	0.46		0.31	1.02	0.22
Green ratio		0.14	0.29	0.07	0.07		0.15	0.44		0.15	0.44	0.44
Unif. delay d1		38.5	28.9	46.5	46.1		42.0	19.6		37.8	28.0	17.4
Delay factor k		0.11	0.11	0.49	0.40		0.45	0.11		0.11	0.50	0.11
Increm. delay d2		0.6	0.7	79.1	46.4		25.8	0.2		0.7	28.4	0.2
PF factor		1.000	0.993	1.000	1.000		0.881	0.476		0.881	0.476	0.476
Control delay		39.1	29.4	125.6	92.4		62.9	9.5		34.0	41.8	8.4
Lane group LOS		D	C	F	F		E	A		C	D	A
Apprch. delay		31.9			110.3		27.2			38.7		
Approach LOS		C			F		C			D		
Intersec. delay		38.0			Intersection LOS						D	

TABLE 9-3-A
WITH MIT: 3NB THROUGH Lanes

SHORT REPORT												
General Information							Site Information					
Analyst USAI Agency or Co. USAI Date Performed 08/24/12 Time Period PM PEAK							Intersection COLLEGE BLVD.@ WARING RD. Area Type All other areas Jurisdiction OCEANSIDE- INT#20PM/WITH MIT. Analysis Year BUILDOUT ALT.#2-PM/NO PROJEC					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	1	1	1	1	0	2	3	0	1	2	1
Lane group		LT	R	L	TR		L	TR		L	T	R
Volume (vph)	105	55	390	130	55	120	380	1855	165	70	960	80
% Heavy veh	1	1	1	1	1	1	1	2	1	1	2	1
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time		2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	2.0
Ext. eff. green		2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	2.0
Arrival type		4	4	4	4		5	5		5	5	5
Unit Extension		3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Ped/Bike/RTOR Volume	5	5	0	5	5	0	5	5	0	5	5	0
Lane Width		12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr		0	0	0	0		0	0		0	0	0
Unit Extension		3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Phasing	EB Only	WB Only	03	04	Excl. Left	NB Only	Thru & RT	08				
Timing	G = 12.0	G = 10.0	G =	G =	G = 10.0	G = 11.1	G = 42.0	G =				
	Y = 4.6	Y = 4	Y =	Y =	Y = 4.6	Y = 5	Y = 6.7	Y =				
Duration of Analysis (hrs) = 0.25							Cycle Length C = 110.0					
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate		174	424	141	190		413	2195		76	1043	87
Lane group cap.		197	532	160	149		811	2644		162	1354	599
v/c ratio		0.88	0.80	0.88	1.28		0.51	0.83		0.47	0.77	0.15
Green ratio		0.11	0.34	0.09	0.09		0.23	0.53		0.09	0.38	0.38
Unif. delay d1		48.3	32.7	49.4	50.0		36.7	21.8		47.5	29.8	22.3
Delay factor k		0.41	0.34	0.41	0.50		0.12	0.37		0.11	0.32	0.11
Increm. delay d2		34.2	8.3	39.2	165.7		0.5	2.4		2.1	2.8	0.1
PF factor		1.000	0.950	1.000	1.000		0.797	0.254		0.933	0.588	0.588
Control delay		82.5	39.4	88.6	215.7		29.8	7.9		46.5	20.3	13.2
Lane group LOS		F	D	F	F		C	A		D	C	B
Apprch. delay		51.9			161.6		11.4			21.4		
Approach LOS		D			F		B			C		
Intersec. delay		29.5			Intersection LOS						C	

TABLE 9-3-A
MIT: 3 NB THROUGH LANES

SHORT REPORT												
General Information						Site Information						
Analyst USAI Agency or Co. USAI Date Performed 08/23/12 Time Period PM PEAK						Intersection COLLEGE BLVD.@ Waring Rd. Area Type All other areas Jurisdiction OCEANSIDE- INT#20PM/WITH MIT. Analysis Year BUILDOUT ALT.#2-PM/WITH PROJEC						
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	1	1	1	1	0	2	3	0	1	2	1
Lane group		LT	R	L	TR		L	TR		L	T	R
Volume (vph)	105	55	401	130	55	120	386	1873	165	70	978	80
% Heavy veh	1	1	1	1	1	1	1	2	1	1	2	1
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time		2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	2.0
Ext. eff. green		2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	2.0
Arrival type		4	4	4	4		5	5		5	5	5
Unit Extension		3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Ped/Bike/RTOR Volume	5	5	0	5	5	0	5	5	0	5	5	0
Lane Width		12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr		0	0	0	0		0	0		0	0	0
Unit Extension		3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Phasing	EB Only	WB Only	03	04	Excl. Left	NB Only	Thru & RT	08				
Timing	G = 12.0	G = 10.0	G =	G =	G = 10.0	G = 11.1	G = 42.0	G =				
	Y = 4.6	Y = 4	Y =	Y =	Y = 4.6	Y = 5	Y = 6.7	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 110.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate		174	436	141	190		420	2215		76	1063	87
Lane group cap.		197	532	160	149		811	2644		162	1354	599
v/c ratio		0.88	0.82	0.88	1.28		0.52	0.84		0.47	0.79	0.15
Green ratio		0.11	0.34	0.09	0.09		0.23	0.53		0.09	0.38	0.38
Unif. delay d1		48.3	33.0	49.4	50.0		36.7	22.0		47.5	30.0	22.3
Delay factor k		0.41	0.36	0.41	0.50		0.12	0.37		0.11	0.33	0.11
Increm. delay d2		34.2	9.8	39.2	165.7		0.6	2.5		2.1	3.1	0.1
PF factor		1.000	0.950	1.000	1.000		0.797	0.254		0.933	0.588	0.588
Control delay		82.5	41.2	88.6	215.7		29.9	8.1		46.5	20.8	13.2
Lane group LOS		F	D	F	F		C	A		D	C	B
Apprch. delay	53.0			161.6			11.6			21.8		
Approach LOS	D			F			B			C		
Intersec. delay	29.8			Intersection LOS						C		

SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	MARRON RD.@QUARRY CREEK CTR.					
Agency or Co.	USAI					Area Type	All other areas					
Date Performed	06/06/12					Jurisdiction	OCEANSIDE					
Time Period	AM PEAK					Analysis Year	B.O. ALT#2-NO PROJECT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	2	0	2	2	1	0	1	1	1	1	1
Lane group	L	TR		L	T	R		LTR	R	L	LT	R
Volume (vph)	0	15	0	160	16	144	0	5	75	135	5	0
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0
Ext. eff. green	2.0	2.0		2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0
Arrival type	3	3		3	3	3		3	3	3	3	5
Unit Extension	3.0	3.0		3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	0	5	10	0
Lane Width	12.0	12.0		12.0	12.0	12.0		12.0	12.0	12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0	0		0	0	0	0	0
Unit Extension	3.0	3.0		3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0
Phasing	Excl. Left	Thru & RT	03	04	NB Only	SB Only	07	08				
Timing	G = 10.0	G = 20.0	G =	G =	G = 10.0	G = 10.0	G =	G =				
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 5	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 70.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
Adj. flow rate	0	16		174	17	157		17	70	88	64	0
Lane group cap.	491	1013		491	1013	663		226	212	248	250	218
v/c ratio	0.00	0.02		0.35	0.02	0.24		0.08	0.33	0.35	0.26	0.00
Green ratio	0.14	0.29		0.14	0.29	0.43		0.14	0.14	0.14	0.14	0.14
Unif. delay d1	25.7	17.9		27.1	17.9	12.7		26.0	27.0	27.1	26.7	25.7
Delay factor k	0.11	0.11		0.11	0.11	0.11		0.11	0.11	0.11	0.11	0.11
Increm. delay d2	0.0	0.0		0.4	0.0	0.2		0.1	0.9	0.9	0.5	0.0
PF factor	1.000	1.000		1.000	1.000	1.000		1.000	1.000	1.000	1.000	1.000
Control delay	25.7	17.9		27.5	17.9	12.9		26.1	27.9	28.0	27.2	25.7
Lane group LOS	C	B		C	B	B		C	C	C	C	C
Apprch. delay	17.9			20.5			27.6			27.7		
Approach LOS	B			C			C			C		
Intersec. delay	23.2			Intersection LOS						C		

SHORT REPORT													
General Information							Site Information						
Analyst	USAI						Intersection						MARRON RD.@QUARRY
Agency or Co.	USAI						Area Type						CREEK CTR.
Date Performed	06/06/12						Jurisdiction						All other areas
Time Period	AM PEAK						Analysis Year						OCEANSIDE
													B.O. ALT#2-WITH
													PROJECT
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	2	2	0	2	2	1	0	1	1	1	1	1	
Lane group	L	TR		L	T	R		LTR	R	L	LT	R	
Volume (vph)	10	169	7	160	77	144	2	5	75	150	5	0	
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2	
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	2.0	2.0		2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Ext. eff. green	2.0	2.0		2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Arrival type	3	3		3	3	3		3	3	3	3	5	
Unit Extension	3.0	3.0		3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	10	5	10	0	
Lane Width	12.0	12.0		12.0	12.0	12.0		12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0		0	0	0		0	0	0	0	0	
Unit Extension	3.0	3.0		3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Phasing	Excl. Left	Thru & RT	03	04	NB Only	SB Only	07	08					
Timing	G = 10.0	G = 20.0	G =	G =	G = 10.0	G = 10.0	G =	G =					
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 5	Y =	Y =					
Duration of Analysis (hrs) = 0.25							Cycle Length C = 70.0						
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	11	192		174	84	157		7	71	163	5	0	
Lane group cap.	491	1006		491	1013	663		262	212	248	266	218	
v/c ratio	0.02	0.19		0.35	0.08	0.24		0.03	0.33	0.66	0.02	0.00	
Green ratio	0.14	0.29		0.14	0.29	0.43		0.14	0.14	0.14	0.14	0.14	
Unif. delay d1	25.8	18.9		27.1	18.3	12.7		25.8	27.0	28.4	25.8	25.7	
Delay factor k	0.11	0.11		0.11	0.11	0.11		0.11	0.11	0.23	0.11	0.11	
Increm. delay d2	0.0	0.1		0.4	0.0	0.2		0.0	0.9	6.2	0.0	0.0	
PF factor	1.000	1.000		1.000	1.000	1.000		1.000	1.000	1.000	1.000	1.000	
Control delay	25.8	19.0		27.5	18.3	12.9		25.9	27.9	34.6	25.8	25.7	
Lane group LOS	C	B		C	B	B		C	C	C	C	C	
Apprch. delay	19.4			20.1			27.8			34.3			
Approach LOS	B			C			C			C			
Intersec. delay	23.4			Intersection LOS						C			

SHORT REPORT													
General Information							Site Information						
Analyst	USAI						Intersection						MARRON RD.@QUARRY CREEK CTR.
Agency or Co.	USAI						Area Type						All other areas
Date Performed	06/06/12						Jurisdiction						OCEANSIDE
Time Period	PM PEAK						Analysis Year						B.O.ALT#2-NO PROJECT
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	2	2	0	2	2	1	0	1	1	1	1	1	
Lane group	L	TR		L	T	R		LTR	R	L	LT	R	
Volume (vph)	0	55	0	338	34	306	0	5	273	498	5	0	
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2	
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	2.0	2.0		2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Ext. eff. green	2.0	2.0		2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Arrival type	3	3		3	3	3		3	3	3	3	3	
Unit Extension	3.0	3.0		3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	40	5	10	0	
Lane Width	12.0	12.0		12.0	12.0	12.0		12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0		0	0	0		0	0	0	0	0	
Unit Extension	3.0	3.0		3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Phasing	Excl. Left	Thru & RT	03	04	NB Only	SB Only	07	08					
Timing	G = 15.0	G = 15.0	G =	G =	G = 18.0	G = 32.0	G =	G =					
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 5	Y =	Y =					
Duration of Analysis (hrs) = 0.25							Cycle Length C = 100.0						
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	0	60		367	37	333		56	202	379	167	0	
Lane group cap.	516	532		516	532	725		276	270	562	564	495	
v/c ratio	0.00	0.11		0.71	0.07	0.46		0.20	0.75	0.67	0.30	0.00	
Green ratio	0.15	0.15		0.15	0.15	0.47		0.18	0.18	0.32	0.32	0.32	
Unif. delay d1	36.1	36.7		40.4	36.5	17.9		34.9	38.9	29.5	25.5	23.1	
Delay factor k	0.11	0.11		0.27	0.11	0.11		0.11	0.30	0.25	0.11	0.11	
Increm. delay d2	0.0	0.1		4.6	0.1	0.5		0.4	11.0	3.2	0.3	0.0	
PF factor	1.000	1.000		1.000	1.000	1.000		1.000	1.000	1.000	1.000	1.000	
Control delay	36.1	36.8		45.0	36.6	18.4		35.3	49.8	32.7	25.8	23.1	
Lane group LOS	D	D		D	D	B		D	D	C	C	C	
Apprch. delay	36.8			32.5			46.7			30.6			
Approach LOS	D			C			D			C			
Intersec. delay	34.3			Intersection LOS						C			

SHORT REPORT													
General Information							Site Information						
Analyst	USAI						Intersection						MARRON RD.@QUARRY CREEK CTR.
Agency or Co.	USAI						Area Type						All other areas
Date Performed	06/06/12						Jurisdiction						OCEANSIDE
Time Period	PM PEAK						Analysis Year						B.O.ALT#2-WITH PROJECT
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	2	2	0	2	2	1	0	1	1	1	1	1	
Lane group	L	TR		L	T	R		LTR	R	L	LT	R	
Volume (vph)	6	91	4	338	222	306	8	5	273	545	5	11	
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2	
PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	2.0	2.0		2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Ext. eff. green	2.0	2.0		2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Arrival type	3	3		3	3	3		3	3	3	3	3	
Unit Extension	3.0	3.0		3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	5	10	0	5	10	0	5	10	40	5	10	0	
Lane Width	12.0	12.0		12.0	12.0	12.0		12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0		0	0	0		0	0	0	0	0	
Unit Extension	3.0	3.0		3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Phasing	Excl. Left	Thru & RT	03	04	NB Only	SB Only	07	08					
Timing	G = 15.0	G = 15.0	G =	G =	G = 18.0	G = 32.0	G =	G =					
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 5	Y =	Y =					
Duration of Analysis (hrs) = 0.25							Cycle Length C = 100.0						
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
Adj. flow rate	7	103		367	241	333		65	202	385	212	12	
Lane group cap.	516	528		516	532	725		282	270	562	564	495	
v/c ratio	0.01	0.20		0.71	0.45	0.46		0.23	0.75	0.69	0.38	0.02	
Green ratio	0.15	0.15		0.15	0.15	0.47		0.18	0.18	0.32	0.32	0.32	
Unif. delay d1	36.2	37.2		40.4	38.8	17.9		35.1	38.9	29.6	26.3	23.3	
Delay factor k	0.11	0.11		0.27	0.11	0.11		0.11	0.30	0.25	0.11	0.11	
Increm. delay d2	0.0	0.2		4.6	0.6	0.5		0.4	11.0	3.5	0.4	0.0	
PF factor	1.000	1.000		1.000	1.000	1.000		1.000	1.000	1.000	1.000	1.000	
Control delay	36.2	37.4		45.0	39.4	18.4		35.5	49.8	33.1	26.7	23.3	
Lane group LOS	D	D		D	D	B		D	D	C	C	C	
Apprch. delay	37.3			34.1			46.3			30.7			
Approach LOS	D			C			D			C			
Intersec. delay	34.9			Intersection LOS						C			

#22
AM

ROUNDBABOUTS - UNSIGNALIZED INTERSECTIONS WORKSHEET					
General Information			Site Information		
Analyst USAI			Intersection MARRON RD./STREET B		
Agency/Co. USAI			Jurisdiction CARLSBAD		
Date Performed 6/7/2012			Analysis Year ALT. #2 PLUS PROJECT		
Time Period AM PEAK HOUR					
Project Description QC					
Volume Adjustments					
		EB	WB	NB	SB
LT Traffic	Volume, veh/h	30	0	0	149
	PHF	0.90	0.90	0.90	0.90
	Flow rate, veh/h	33	0	0	165
TH Traffic	Volume, veh/h	36	12	0	0
	PHF	0.90	0.90	0.90	0.90
	Flow rate, veh/h	40	13	0	0
RT Traffic	Volume, veh/h	0	52	0	10
	PHF	0.90	0.90	0.90	0.90
	Flow rate, veh/h	0	57	0	11
Approach Flow Computation					
Approach Flow (veh/h)			Va (veh/h)		
V _{ae}			73		
V _{aw}			70		
V _{an}			0		
V _{as}			176		
Circulating Flow Computation					
Approach Flow (veh/h)			Vc (veh/h)		
V _{ce}			165		
V _{cw}			33		
V _{cn}			238		
V _{cs}			13		
Capacity Computation					
		EB	WB	NB	SB
Capacity	Upper bound	1217	1349	1149	1370
	Lower bound	1008	1129	947	1148
v/c Ratio	Upper bound	0.06	0.05	0.00	0.13
	Lower bound	0.07 ✓	0.06 ✓	0.00 ✓	0.15 ✓

HCS2000™

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Version 4.1f

ALL VIC @ LOS A

#22
PM

ROUNDBABOUTS - UNSIGNALIZED INTERSECTIONS WORKSHEET					
General Information			Site Information		
Analyst USAI			Intersection MARRON RD./STREET B		
Agency/Co. USAI			Jurisdiction CARLSBAD		
Date Performed 6/7/2012			Analysis Year ALT #2 PLUS PROJECT		
Time Period PM PEAK HOUR					
Project Description QC					
Volume Adjustments					
		EB	WB	NB	SB
LT Traffic	Volume, veh/h	15	0	0	83
	PHF	0.90	0.90	0.90	0.90
	Flow rate, veh/h	16	0	0	92
TH Traffic	Volume, veh/h	18	42	0	0
	PHF	0.90	0.90	0.90	0.90
	Flow rate, veh/h	20	46	0	0
RT Traffic	Volume, veh/h	0	164	0	34
	PHF	0.90	0.90	0.90	0.90
	Flow rate, veh/h	0	182	0	37
Approach Flow Computation					
Approach Flow (veh/h)			Va (veh/h)		
V _{ae}			36		
V _{aw}			228		
V _{an}			0		
V _{as}			129		
Circulating Flow Computation					
Approach Flow (veh/h)			Vc (veh/h)		
V _{ce}			92		
V _{cw}			16		
V _{cn}			128		
V _{cs}			46		
Capacity Computation					
		EB	WB	NB	SB
Capacity	Upper bound	1288	1367	1252	1335
	Lower bound	1073	1145	1041	1116
v/c Ratio	Upper bound	0.03	0.17	0.00	0.10
	Lower bound	0.03 ✓	0.20 ✓	0.00 ✓	0.12 ✓

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ALL v/c @ LOS A

FAIR-SHARE %COLLEGE BLVD (VISTA WAY TO PLAZA DR.)SEGMENT ALT. #2I. TOTAL VOLUME AT BUILDOUT

$$\begin{array}{r}
 \text{BUILDOUT WITH PROJECT} \quad 58,300 \text{ ADT} \\
 \text{BUILDOUT WITHOUT PROJECT} \quad -55,600 \text{ ADT} \\
 \hline
 \text{PROJECT ONLY INCREASE} = \quad 2,700 \text{ ADT}
 \end{array}$$

II. EXISTING VOLUME

$$\begin{array}{r}
 \text{EXISTING} \quad 44,884 \text{ ADT}
 \end{array}$$

III. TOTAL INCREASE

$$\begin{array}{r}
 \text{BUILDOUT} \quad 58,300 \text{ ADT} \\
 \text{EXISTING} \quad -44,884 \text{ ADT} \\
 \hline
 \text{TOTAL INCREASE} = \quad 13,416 \text{ ADT}
 \end{array}$$

IV. PROJECT PERCENTAGE OF TOTAL INCREASE

$$\frac{\text{PROJECT ONLY}}{\text{TOTAL INCREASE}} = \frac{2,700 \text{ ADT}}{13,416 \text{ ADT}} = \underline{\underline{20.1\%}}$$

FAIR-SHARE % BASED ON ADT

COLLEGE BLVD. (PLAZA DR. TO MARBON RD.)

SEGMENT ALT. #2

I. TOTAL VOLUME AT BUILDOUT

$$\begin{array}{r}
 \text{BUILDOUT WITH PROJECT} \quad 45,300 \text{ ADT} \\
 \text{BUILDOUT WITHOUT PROJECT} \quad - 42,700 \text{ ADT} \\
 \hline
 \text{PROJECT ONLY INCREASE} = 2,600 \text{ ADT}
 \end{array}$$

II. EXISTING VOLUME

$$\begin{array}{r}
 \text{EXISTING} \quad 36,219 \text{ ADT}
 \end{array}$$

III. TOTAL INCREASE

$$\begin{array}{r}
 \text{BUILDOUT} \\
 \text{EXISTING} \\
 \hline
 \text{TOTAL INCREASE} = 45,300 \text{ ADT} - 36,219 \text{ ADT} = 9,081 \text{ ADT}
 \end{array}$$

IV. PROJECT PERCENTAGE OF TOTAL INCREASE

$$\frac{\text{PROJECT ONLY}}{\text{TOTAL INCREASE}} = \frac{2,600}{9,081} = \underline{\underline{28.6\%}}$$

FAIR-SHARE %

COLLEGE BLVD. (MARRON RD. TO S. CITY LIMIT)

SEGMENT ALT. #2

I. TOTAL VOLUME AT BUILDOUT

$$\begin{array}{r}
 \text{BUILDOUT WITH PROJECT} \quad 43,600 \text{ ADT} \\
 \text{BUILDOUT WITHOUT PROJECT} \quad - 42,200 \text{ ADT} \\
 \hline
 \text{PROJECT ONLY INCREASE} = \quad 1,400 \text{ ADT}
 \end{array}$$

II. EXISTING VOLUME

$$\begin{array}{r}
 \text{EXISTING} \quad 24,475 \text{ ADT}
 \end{array}$$

III. TOTAL INCREASE

$$\begin{array}{r}
 \text{BUILDOUT} \quad 43,600 \text{ ADT} \\
 \text{EXISTING} \quad - 24,475 \text{ ADT} \\
 \hline
 \text{TOTAL INCREASE} = \quad 19,125 \text{ ADT}
 \end{array}$$

IV. PROJECT PERCENTAGE OF TOTAL INCREASE

$$\frac{\text{PROJECT ONLY}}{\text{TOTAL INCREASE}} = \frac{1,400 \text{ ADT}}{19,125 \text{ ADT}} = \underline{\underline{7.3\%}}$$

FAIR-SHARE %

VISTA WY (COLLEGE BLVD TO SE-THRU RAMP)

SEGMENT ALT. #2

I. TOTAL VOLUME AT BUILDOUT

$$\begin{array}{r}
 \text{BUILDOUT WITH PROJECT} \quad 31,900 \text{ ADT} \\
 \text{BUILDOUT WITHOUT PROJECT} \quad - 30,700 \text{ ADT} \\
 \hline
 \text{PROJECT ONLY INCREASE} = \quad 1,200 \text{ ADT}
 \end{array}$$

II. EXISTING VOLUME

$$\begin{array}{r}
 \text{EXISTING} \quad 28,000 \text{ ADT}
 \end{array}$$

III. TOTAL INCREASE

$$\begin{array}{r}
 \text{BUILDOUT} \quad 31,900 \text{ ADT} \\
 \text{EXISTING} \quad - 28,000 \text{ ADT} \\
 \hline
 \text{TOTAL INCREASE} = \quad 3,900 \text{ ADT}
 \end{array}$$

IV. PROJECT PERCENTAGE OF TOTAL INCREASE

$$\frac{\text{PROJECT ONLY}}{\text{TOTAL INCREASE}} = \frac{1,200 \text{ ADT}}{3,900 \text{ ADT}} = \underline{\underline{30.8\%}}$$

FAIR-SHARE %

ALT.- 2

INTERSECTION (COLLEGE/MARROW-LAKE)

I. TOTAL VOLUME AT BUILDOUT

AM

PM

BUILDOUT WITH PROJECT

BUILDOUT WITHOUT PROJECT

PROJECT ONLY INCREASE =

5345
- 4645

700

II. EXISTING VOLUME

EXISTING

4202

III. TOTAL INCREASE

BUILDOUT

EXISTING

TOTAL INCREASE =

5345
- 4202

1143

IV. PROJECT PERCENTAGE OF TOTAL INCREASE

$$\frac{\text{PROJECT ONLY}}{\text{TOTAL INCREASE}} = \frac{700}{1143} = \underline{\underline{61.2\%}}$$

ARTERIAL ANALYSIS WORKSHEETS

16 PAGES

URBAN STREET WORKSHEET #1

General Information

Analyst USAI
 Agency/Co. USAI
 Date Performed 09/04/12
 Time Period AM PEAK HOUR

Site Information

Urban Street COLLEGE BLVD.
 Direction of Travel North-bound
 Jurisdiction OCEANSIDE
 Analysis Year BUILDOUT NO PROJECT/ALT-2

Project Description: QUARRY CREEK/COLL2AMNPB

Input Parameters

Analysis Period(h) T = 0.25	Segments							
	1	2	3	4	5	6	7	8
Cycle length, C (s)	100.0	100.0	100.0	100.0	100.0			
Eff. green to cycle ratio, g/C	0.310	0.300	0.640	0.400	0.440			
v/c ratio for lane group, X	0.765	0.829	0.293	0.459	0.466			
Cap of lane group, c (veh/h)	1100	1466	4330	2030	1561			
Pct Veh on Grn., PVG								
Arrival type, AT	5	5	5	5	5			
Unit Extension, UE (sec)	3.0	3.0	3.0	3.0	3.0			
Length of segment, L (mi)	0.34	0.27	0.05	0.10	0.16			
Initial Queue, Qb (veh)	0	0	0	0	0			
Urban street class, SC	2	2	2	2	2			
Free-flow speed, FSS (mi/h)	40	40	40	40	40			
Running Time, TR (s)	33.9	28.8	5.8	11.5	18.4			
Other delay, (s)	0.0	0.0	0.0	0.0	0.0			


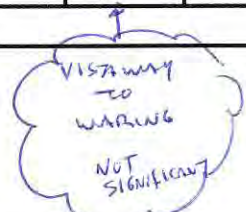
Delay Computation

Uniform delay, d1 (s)	31.2	32.6	8.0	22.0	19.7	5.4	5.4	5.4
Incremental delay adj, k	0.32	0.37	0.11	0.11	0.11	0.50	0.50	0.50
Upstream filtering adj factor, l	1.000	0.555	0.450	0.966	0.887			
Incremental delay, d2 (s)	3.3	2.3	0.0	0.2	0.2	3.9		
Initial queue delay, d3 (s)	0	0	0	0	0			
Progression adj factor, PF	0.700	0.714	0.000	0.555	0.476	0.256	0.256	0.256
Control delay, d (s)	25.1	25.6	0.0	12.4	9.6			

Segment LOS Determination

Travel time, ST (s)	59.0	54.5	5.8	23.9	28.0			
Travel speed, SA (mi/h)	20.7	17.8	31.2	15.1	20.6			
Segment LOS	D	D	B	E	D			

Urban Street LOS Determination

Total travel time (s)	171.1		
Total length (mi)	0.92		
Total travel speed, SA (mi/h)	19.4		
Total urban street LOS	D		

URBAN STREET WORKSHEET #1								
General Information				Site Information				
Analyst <i>USAI</i>				Urban Street <i>COLLEGE BLVD.</i>				
Agency/Co. <i>USAI</i>				Direction of Travel <i>North-bound</i>				
Date Performed <i>09/04/12</i>				Jurisdiction <i>OCEANSIDE</i>				
Time Period <i>AM PEAK HOUR</i>				Analysis Year <i>BUILDOUT WITH PROJECT/ALT-2</i>				
Project Description: <i>QUARRY CREEK/COLL2AMWPNB</i>								
Input Parameters								
Analysis Period(h) T = 0.25	Segments							
	1	2	3	4	5	6	7	8
Cycle length, C (s)	100.0	100.0	100.0	100.0	100.0			
Eff. green to cycle ratio, g/C	0.320	0.300	0.640	0.400	0.440			
v/c ratio for lane group, X	0.757	0.913	0.329	0.482	0.490			
Cap of lane group, c (veh/h)	1135	1464	4330	2030	1561			
Pct Veh on Grn., PVG								
Arrival type, AT	5	5	5	5	5			
Unit Extension, UE (sec)	3.0	3.0	3.0	3.0	3.0			
Length of segment, L (mi)	0.34	0.27	0.05	0.10	0.16			
Initial Queue, Qb (veh)	0	0	0	0	0			
Urban street class, SC	2	2	2	2	2			
Free-flow speed, FSS (mi/h)	40	40	40	40	40			
Running Time, TR (s)	33.9	28.8	5.8	11.5	18.4			
Other delay, (s)	0.0	0.0	0.0	0.0	0.0			
Delay Computation								
Uniform delay, d1 (s)	30.5	33.7	8.2	22.3	20.0	5.4	5.4	5.4
Incremental delay adj, k	0.31	0.43	0.11	0.11	0.11	0.50	0.50	0.50
Upstream filtering adj factor, I	1.000	0.569	0.288	0.954	0.871			
Incremental delay, d2 (s)	3.0	5.5	0.0	0.2	0.2	3.8		
Initial queue delay, d3 (s)	0	0	0	0	0			
Progression adj factor, PF	0.686	0.714	0.000	0.555	0.476	0.256	0.256	0.256
Control delay, d (s)	23.9	29.6	0.0	12.6	9.7			
Segment LOS Determination								
Travel time, ST (s)	57.8	58.5	5.8	24.1	28.1			
Travel speed, SA (mi/h)	21.2	16.6	31.2	15.0	20.5			
Segment LOS	D	E	B	E	D			
Urban Street LOS Determination								
Total travel time (s)	174.2	<div style="display: inline-block; width: 45%; vertical-align: top;"> <p style="margin: 0;">↑</p> <p style="margin: 0;">NARROW TO PLAZA</p> <p style="margin: 0;">17.8</p> <p style="margin: 0;">- 16.6</p> <p style="margin: 0;">= 1.2 MPH SIGNIFICANT</p> </div> <div style="display: inline-block; width: 45%; vertical-align: top;"> <p style="margin: 0;">↑</p> <p style="margin: 0;">VISTA WAY TO WARNING OK</p> </div>						
Total length (mi)	0.92							
Total travel speed, SA (mi/h)	19.0							
Total urban street LOS	D							

URBAN STREET WORKSHEET #1								
General Information				Site Information				
Analyst USAI				Urban Street COLLEGE BLVD.				
Agency/Co. USAI				Direction of Travel North-bound				
Date Performed 09/04/12				Jurisdiction OCEANSIDE				
Time Period PM				Analysis Year BUILDOUT NO PROJECT/ALT-2				
Project Description: QUARRY CREEK/COLL2PMNPNB								
Input Parameters								
Analysis Period(h) T = 0.25	Segments							
	1	2	3	4	5	6	7	8
Cycle length, C (s)	99.5	110.0	100.0	110.0	110.0			
Eff. green to cycle ratio, g/C	0.311	0.375	0.540	0.434	0.528			
v/c ratio for lane group, X	1.084	1.055	0.638	0.875	1.076			
Cap of lane group, c (veh/h)	1102	1843	3653	2200	1873			
Pct Veh on Grn., PVG								
Arrival type, AT	5	5	5	5	5			
Unit Extension, UE (sec)	3.0	3.0	3.0	3.0	3.0			
Length of segment, L (mi)	0.34	0.27	0.05	0.10	0.16			
Initial Queue, Qb (veh)	0	0	0	0	0			
Urban street class, SC	2	2	2	2	2			
Free-flow speed, FSS (mi/h)	40	40	40	40	40			
Running Time, TR (s)	33.9	28.8	5.8	11.5	18.4			
Other delay, (s)	0.0	0.0	0.0	0.0	0.0			
Delay Computation								
Uniform delay, d1 (s)	34.3	34.4	16.1	28.4	25.9	5.4	5.4	5.4
Incremental delay adj, k	0.50	0.50	0.22	0.40	0.50	0.50	0.50	0.50
Upstream filtering adj factor, I	1.000	0.090	0.090	0.727	0.363			
Incremental delay, d2 (s)	53.0	26.3	0.0	3.2	38.7	0.4		
Initial queue delay, d3 (s)	0	0	0	0	0			
Progression adj factor, PF	0.700	0.601	0.217	0.489	0.253	0.256	0.256	0.256
Control delay, d (s)	77.0	46.9	3.5	17.1	45.3			
Segment LOS Determination								
Travel time, ST (s)	110.9	75.7	9.3	28.6	63.7			
Travel speed, SA (mi/h)	11.0	12.8 ✓	19.4	12.6	9.0 ✓			
Segment LOS	F	F	D	F	F			
Urban Street LOS Determination								
Total travel time (s)	288.2							
Total length (mi)	0.92							
Total travel speed, SA (mi/h)	11.5							
Total urban street LOS	F							

URBAN STREET WORKSHEET #1								
General Information				Site Information				
Analyst	USAI			Urban Street	COLLEGE BLVD.			
Agency/Co.	USAI			Direction of Travel	North-bound			
Date Performed	09/04/12			Jurisdiction	OCEANSIDE			
Time Period	PM			Analysis Year	BUILDOUT WITH PROJECT/ALT-2			
Project Description: QUARRY CREEK/COLL2PMWPNB								
Input Parameters								
Analysis Period(h) T = 0.25	Segments							
	1	2	3	4	5	6	7	8
Cycle length, C (s)	99.5	110.0	100.0	110.0	110.0			
Eff. green to cycle ratio, g/C	0.311	0.375	0.540	0.434	0.528			
v/c ratio for lane group, X	1.129	1.090	0.661	0.887	1.087			
Cap of lane group, c (veh/h)	1102	1842	3653	2200	1873			
Pct Veh on Grn., PVG								
Arrival type, AT	5	5	5	5	5			
Unit Extension, UE (sec)	3.0	3.0	3.0	3.0	3.0			
Length of segment, L (mi)	0.34	0.27	0.05	0.10	0.16			
Initial Queue, Qb (veh)	0	0	0	0	0			
Urban street class, SC	2	2	2	2	2			
Free-flow speed, FSS (mi/h)	40	40	40	40	40			
Running Time, TR (s)	33.9	28.8	5.8	11.5	18.4			
Other delay, (s)	0.0	0.0	0.0	0.0	0.0			
Delay Computation								
Uniform delay, d1 (s)	34.3	34.4	16.5	28.7	25.9	5.4	5.4	5.4
Incremental delay adj, k	0.50	0.50	0.24	0.41	0.50	0.50	0.50	0.50
Upstream filtering adj factor, I	1.000	0.090	0.090	0.700	0.340			
Incremental delay, d2 (s)	69.9	41.6	0.0	3.5	42.9	0.4		
Initial queue delay, d3 (s)	0	0	0	0	0			
Progression adj factor, PF	0.700	0.601	0.217	0.489	0.253	0.256	0.256	0.256
Control delay, d (s)	93.9	62.3	3.6	17.5	49.5			
Segment LOS Determination								
Travel time, ST (s)	127.7	91.1	9.4	29.0	67.9			
Travel speed, SA (mi/h)	9.6	10.7	19.2	12.4	8.5			
Segment LOS	F	F	D	F	F			
Urban Street LOS Determination								
Total travel time (s)	325.0							
Total length (mi)	0.92							
Total travel speed, SA (mi/h)	10.2							
Total urban street LOS	F							

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URBAN STREET WORKSHEET #1								
General Information				Site Information				
Analyst	USAI			Urban Street	COLLEGE BLVD.			
Agency/Co.	USAI			Direction of Travel	South-bound			
Date Performed	09/04/12			Jurisdiction	OCEANSIDE			
Time Period	AM PEAK HOUR			Analysis Year	BUILDOUT NO PROJECT/ALT-2			
Project Description: QUARRY CREEK/COLL2AMNPSB								
Input Parameters								
Analysis Period(h) T = 0.25	Segments							
	1	2	3	4	5	6	7	8
Cycle length, C (s)	100.0	100.0	100.0	100.0	100.0			
Eff. green to cycle ratio, g/C	0.440	0.400	0.640	0.530	0.410			
v/c ratio for lane group, X	1.013	0.889	0.382	0.681	0.964			
Cap of lane group, c (veh/h)	1561	2014	5412	2645	1454			
Pct Veh on Grn., PVG								
Arrival type, AT	5	5	5	5	5			
Unit Extension, UE (sec)	3.0	3.0	3.0	3.0	3.0			
Length of segment, L (mi)	0.25	0.16	0.10	0.05	0.27			
Initial Queue, Qb (veh)	0	0	0	0	0			
Urban street class, SC	2	2	2	2	2			
Free-flow speed, FSS (mi/h)	40	40	40	40	40			
Running Time, TR (s)	27.5	18.4	11.5	5.8	28.8			
Other delay, (s)	0.0	0.0	0.0	0.0	0.0			
Delay Computation								
Uniform delay, d1 (s)	28.0	27.9	8.6	17.3	28.8	5.4	5.4	5.4
Incremental delay adj, k	0.50	0.41	0.11	0.25	0.47	0.50	0.50	0.50
Upstream filtering adj factor, I	1.000	0.090	0.337	0.931	0.676			
Incremental delay, d2 (s)	26.2	0.5	0.0	0.7	12.1	0.8		
Initial queue delay, d3 (s)	0	0	0	0	0			
Progression adj factor, PF	0.476	0.555	0.000	0.248	0.536	0.256	0.256	0.256
Control delay, d (s)	39.5	16.0	0.0	5.0	27.6			
Segment LOS Determination								
Travel time, ST (s)	67.0	34.4	11.5	10.7	56.4			
Travel speed, SA (mi/h)	13.4	16.7	31.3	16.8	17.2			
Segment LOS	E	E	B	E	D			
Urban Street LOS Determination								
Total travel time (s)	180.1							
Total length (mi)	0.83							
Total travel speed, SA (mi/h)	16.6							
Total urban street LOS	E							

URBAN STREET WORKSHEET #1								
General Information					Site Information			
Analyst <i>USAI</i> Agency/Co. <i>USAI</i> Date Performed <i>09/04/12</i> Time Period <i>AM PEAK HOUR</i>					Urban Street <i>COLLEGE BLVD.</i> Direction of Travel <i>South-bound</i> Jurisdiction <i>OCEANSIDE</i> Analysis Year <i>BUILDOUT WITH PROJECT/ALT-2</i>			
Project Description: <i>QUARRY CREEK/COLL2AMWPSB</i>								
Input Parameters								
Analysis Period(h) T = 0.25	Segments							
	1	2	3	4	5	6	7	8
Cycle length, C (s)	100.0	100.0	100.0	100.0	100.0			
Eff. green to cycle ratio, g/C	0.440	0.400	0.640	0.530	0.420			
v/c ratio for lane group, X	1.022	0.896	0.390	0.710	0.972			
Cap of lane group, c (veh/h)	1561	2015	5412	2638	1490			
Pct Veh on Grn., PVG								
Arrival type, AT	5	5	5	5	5			
Unit Extension, UE (sec)	3.0	3.0	3.0	3.0	3.0			
Length of segment, L (mi)	0.25	0.16	0.10	0.05	0.27			
Initial Queue, Qb (veh)	0	0	0	0	0			
Urban street class, SC	2	2	2	2	2			
Free-flow speed, FSS (mi/h)	40	40	40	40	40			
Running Time, TR (s)	27.5	18.4	11.5	5.8	28.8			
Other delay, (s)	0.0	0.0	0.0	0.0	0.0			
Delay Computation								
Uniform delay, d1 (s)	28.0	28.1	8.6	17.7	28.4	5.4	5.4	5.4
Incremental delay adj, k	0.50	0.42	0.11	0.27	0.48	0.50	0.50	0.50
Upstream filtering adj factor, I	1.000	0.090	0.321	0.927	0.637			
Incremental delay, d2 (s)	28.4	0.6	0.0	0.8	12.8	0.7		
Initial queue delay, d3 (s)	0	0	0	0	0			
Progression adj factor, PF	0.476	0.555	0.000	0.248	0.517	0.256	0.256	0.256
Control delay, d (s)	41.8	16.2	0.0	5.2	27.5			
Segment LOS Determination								
Travel time, ST (s)	69.3	34.6	11.5	11.0	56.3			
Travel speed, SA (mi/h)	13.0	16.7	31.3	16.4	17.3			
Segment LOS	F	E	B	E	D			
Urban Street LOS Determination								
Total travel time (s)	182.7	<div style="display: inline-block; width: 40%; text-align: left;"> </div> <div style="display: inline-block; width: 40%; text-align: left;"> </div>						
Total length (mi)	0.83							
Total travel speed, SA (mi/h)	16.4							
Total urban street LOS	E							

URBAN STREET WORKSHEET #1								
General Information				Site Information				
Analyst USAI				Urban Street COLLEGE BLVD.				
Agency/Co. USAI				Direction of Travel South-bound				
Date Performed 09/04/12				Jurisdiction OCEANSIDE				
Time Period PM				Analysis Year BUILDOUT NO PROJECT/ALT-2				
Project Description: QUARRY CREEK/COLL2PMNPSB								
Input Parameters								
Analysis Period(h) T = 0.25	Segments							
	1	2	3	4	5	6	7	8
Cycle length, C (s)	110.0	110.0	100.0	110.0	99.5			
Eff. green to cycle ratio, g/C	0.382	0.328	0.540	0.513	0.311			
v/c ratio for lane group, X	0.770	0.899	0.386	0.678	0.774			
Cap of lane group, c (veh/h)	1354	1645	4567	2572	1102			
Pct Veh on Grn., PVG								
Arrival type, AT	5	5	5	5	5			
Unit Extension, UE (sec)	3.0	3.0	3.0	3.0	3.0			
Length of segment, L (mi)	0.25	0.16	0.10	0.05	0.27			
Initial Queue, Qb (veh)	0	0	0	0	0			
Urban street class, SC	2	2	2	2	2			
Free-flow speed, FSS (mi/h)	40	40	40	40	40			
Running Time, TR (s)	27.5	18.4	11.5	5.8	28.8			
Other delay, (s)	0.0	0.0	0.0	0.0	0.0			
Delay Computation								
Uniform delay, d1 (s)	29.8	35.2	13.4	20.0	31.1	5.4	5.4	5.4
Incremental delay adj, k	0.32	0.42	0.11	0.25	0.32	0.50	0.50	0.50
Upstream filtering adj factor, I	1.000	0.548	0.316	0.929	0.679			
Incremental delay, d2 (s)	2.8	4.1	0.0	0.7	2.4	2.4		
Initial queue delay, d3 (s)	0	0	0	0	0			
Progression adj factor, PF	0.588	0.674	0.217	0.298	0.700	0.256	0.256	0.256
Control delay, d (s)	20.3	27.9	2.9	6.6	24.2			
Segment LOS Determination								
Travel time, ST (s)	47.8	46.3	14.4	12.4	53.0			
Travel speed, SA (mi/h)	18.8	12.4	25.0	14.5	18.3			
Segment LOS	D	F	C	E	D			
Urban Street LOS Determination								
Total travel time (s)	173.9							
Total length (mi)	0.83							
Total travel speed, SA (mi/h)	17.2							
Total urban street LOS	D							

URBAN STREET WORKSHEET #1								
General Information				Site Information				
Analyst	USAI			Urban Street	COLLEGE BLVD.			
Agency/Co.	USAI			Direction of Travel	South-bound			
Date Performed	09/04/12			Jurisdiction	OCEANSIDE			
Time Period	PM			Analysis Year	BUILDOUT WITH PROJECT/ALT-2			
Project Description: QUARRY CREEK/COLL2PMWPSB								
Input Parameters								
Analysis Period(h) T = 0.25	Segments							
	1	2	3	4	5	6	7	8
Cycle length, C (s)	110.0	110.0	100.0	110.0	99.5			
Eff. green to cycle ratio, g/C	0.382	0.328	0.540	0.513	0.311			
v/c ratio for lane group, X	0.785	0.930	0.416	0.730	0.796			
Cap of lane group, c (veh/h)	1354	1646	4567	2548	1102			
Pct Veh on Grn., PVG								
Arrival type, AT	5	5	5	5	5			
Unit Extension, UE (sec)	3.0	3.0	3.0	3.0	3.0			
Length of segment, L (mi)	0.25	0.16	0.10	0.05	0.27			
Initial Queue, Qb (veh)	0	0	0	0	0			
Urban street class, SC	2	2	2	2	2			
Free-flow speed, FSS (mi/h)	40	40	40	40	40			
Running Time, TR (s)	27.5	18.4	11.5	5.8	28.8			
Other delay, (s)	0.0	0.0	0.0	0.0	0.0			
Delay Computation								
Uniform delay, d1 (s)	30.0	35.7	13.6	20.9	31.4	5.4	5.4	5.4
Incremental delay adj, k	0.33	0.45	0.11	0.29	0.34	0.50	0.50	0.50
Upstream filtering adj factor, I	1.000	0.524	0.252	0.913	0.609			
Incremental delay, d2 (s)	3.1	5.7	0.0	1.0	2.6	2.3		
Initial queue delay, d3 (s)	0	0	0	0	0			
Progression adj factor, PF	0.588	0.674	0.217	0.298	0.700	0.256	0.256	0.256
Control delay, d (s)	20.8	29.8	3.0	7.2	24.5			
Segment LOS Determination								
Travel time, ST (s)	48.3	48.2	14.5	13.0	53.4			
Travel speed, SA (mi/h)	18.6	12.0	24.9	13.9	18.2			
Segment LOS	D	F	C	E	D			
Urban Street LOS Determination								
Total travel time (s)	177.3							
Total length (mi)	0.83							
Total travel speed, SA (mi/h)	16.9							
Total urban street LOS	E							

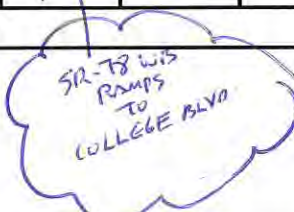
URBAN STREET WORKSHEET #1								
General Information				Site Information				
Analyst <i>USAI</i>				Urban Street <i>VISTA WAY/COLLEGE TO 78WB</i>				
Agency/Co. <i>USAI</i>				RAMP				
Date Performed <i>09/04/12</i>				Direction of Travel <i>East-bound</i>				
Time Period <i>AM PEAK HOUR</i>				Jurisdiction				
				Analysis Year <i>2030 ALT-2/NO PROJECT</i>				
Project Description:								
Input Parameters								
Analysis Period(h) T = 0.25	Segments							
	1	2	3	4	5	6	7	8
Cycle length, C (s)	100.0	110.0						
Eff. green to cycle ratio, g/C	0.260	0.224						
v/c ratio for lane group, X	0.691	0.947						
Cap of lane group, c (veh/h)	922	717						
Pct Veh on Grn., PVG								
Arrival type, AT	5	5						
Unit Extension, UE (sec)	3.0	3.0						
Length of segment, L (mi)	0.09	0.09						
Initial Queue, Qb (veh)	0	0						
Urban street class, SC	2	2						
Free-flow speed, FSS (mi/h)	40	40						
Running Time, TR (s)	10.4	10.4						
Other delay, (s)	0.0	0.0						
Delay Computation								
Uniform delay, d1 (s)	33.4	42.1	5.4	5.4	5.4	5.4	5.4	5.4
Incremental delay adj, k	0.26	0.46	0.50	0.50	0.50	0.50	0.50	0.50
Upstream filtering adj factor, I	1.000	0.662						
Incremental delay, d2 (s)	2.2	16.2	1.0					
Initial queue delay, d3 (s)	0	0						
Progression adj factor, PF	0.766	0.808	0.256	0.256	0.256	0.256	0.256	0.256
Control delay, d (s)	27.8	50.2						
Segment LOS Determination								
Travel time, ST (s)	38.1	60.5						
Travel speed, SA (mi/h)	8.5	5.4						
Segment LOS	F	F ⁺						
Urban Street LOS Determination								
Total travel time (s)	98.7							
Total length (mi)	0.18							
Total travel speed, SA (mi/h)	6.6							
Total urban street LOS	F							

URBAN STREET WORKSHEET #1								
General Information				Site Information				
Analyst	USAI			Urban Street	VISTA WAY/COLLEGE TO 78WB			
Agency/Co.	USAI				RAMP			
Date Performed	09/04/12			Direction of Travel	East-bound			
Time Period	AM PEAK HOUR			Jurisdiction				
				Analysis Year	2030 ALT-2/WITH PROJECT			
Project Description:								
Input Parameters								
Analysis Period(h) T = 0.25	Segments							
	1	2	3	4	5	6	7	8
Cycle length, C (s)	100.0	110.0						
Eff. green to cycle ratio, g/C	0.260	0.224						
v/c ratio for lane group, X	0.704	0.947						
Cap of lane group, c (veh/h)	922	717						
Pct Veh on Grn., PVG								
Arrival type, AT	5	5						
Unit Extension, UE (sec)	3.0	3.0						
Length of segment, L (mi)	0.09	0.09						
Initial Queue, Qb (veh)	0	0						
Urban street class, SC	2	2						
Free-flow speed, FSS (mi/h)	40	40						
Running Time, TR (s)	10.4	10.4						
Other delay, (s)	0.0	0.0						
Delay Computation								
Uniform delay, d1 (s)	33.5	42.1	5.4	5.4	5.4	5.4	5.4	5.4
Incremental delay adj, k	0.27	0.46	0.50	0.50	0.50	0.50	0.50	0.50
Upstream filtering adj factor, I	1.000	0.645						
Incremental delay, d2 (s)	2.5	15.9	1.0					
Initial queue delay, d3 (s)	0	0						
Progression adj factor, PF	0.766	0.808	0.256	0.256	0.256	0.256	0.256	0.256
Control delay, d (s)	28.1	49.9						
Segment LOS Determination								
Travel time, ST (s)	38.5	60.2						
Travel speed, SA (mi/h)	8.4	5.4						
Segment LOS	F	F						
Urban Street LOS Determination								
Total travel time (s)	98.7							
Total length (mi)	0.18							
Total travel speed, SA (mi/h)	6.6							
Total urban street LOS	F							

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URBAN STREET WORKSHEET #1								
General Information				Site Information				
Analyst <i>USAI</i>				Urban Street <i>VISTA WAY/COLLEGE TO 78WB</i>				
Agency/Co. <i>USAI</i>				RAMP				
Date Performed <i>09/04/12</i>				Direction of Travel <i>East-bound</i>				
Time Period <i>PM PEAK HOUR</i>				Jurisdiction				
				Analysis Year <i>2030 ALT-2/NO PROJECT</i>				
Project Description:								
Input Parameters								
Analysis Period(h) T = 0.25	Segments							
	1	2	3	4	5	6	7	8
Cycle length, C (s)	110.0	110.0						
Eff. green to cycle ratio, g/C	0.173	0.224						
v/c ratio for lane group, X	0.892	0.947						
Cap of lane group, c (veh/h)	613	717						
Pct Veh on Grn., PVG								
Arrival type, AT	5	5						
Unit Extension, UE (sec)	3.0	3.0						
Length of segment, L (mi)	0.09	0.09						
Initial Queue, Qb (veh)	0	0						
Urban street class, SC	2	2						
Free-flow speed, FSS (mi/h)	40	40						
Running Time, TR (s)	10.4	10.4						
Other delay, (s)	0.0	0.0						
Delay Computation								
Uniform delay, d1 (s)	44.5	42.1	5.4	5.4	5.4	5.4	5.4	5.4
Incremental delay adj, k	0.42	0.46	0.50	0.50	0.50	0.50	0.50	0.50
Upstream filtering adj factor, l	1.000	0.329						
Incremental delay, d2 (s)	15.4	9.7	1.0					
Initial queue delay, d3 (s)	0	0						
Progression adj factor, PF	0.861	0.808	0.256	0.256	0.256	0.256	0.256	0.256
Control delay, d (s)	53.7	43.6						
Segment LOS Determination								
Travel time, ST (s)	64.0	54.0						
Travel speed, SA (mi/h)	5.1	6.0						
Segment LOS	F	F						
Urban Street LOS Determination								
Total travel time (s)	118.0							
Total length (mi)	0.18							
Total travel speed, SA (mi/h)	5.5							
Total urban street LOS	F							

URBAN STREET WORKSHEET #1								
General Information				Site Information				
Analyst USAI				Urban Street VISTA WAY/COLLEGE TO 78WB				
Agency/Co. USAI				RAMP				
Date Performed 09/04/12				Direction of Travel East-bound				
Time Period PM PEAK HOUR				Jurisdiction				
				Analysis Year 2030 ALT-2/WITH PROJECT				
Project Description:								
Input Parameters								
Analysis Period(h) T = 0.25	Segments							
	1	2	3	4	5	6	7	8
Cycle length, C (s)	110.0	110.0						
Eff. green to cycle ratio, g/C	0.173	0.224						
v/c ratio for lane group, X	0.904	0.947						
Cap of lane group, c (veh/h)	613	717						
Pct Veh on Grn., PVG								
Arrival type, AT	5	5						
Unit Extension, UE (sec)	3.0	3.0						
Length of segment, L (mi)	0.09	0.09						
Initial Queue, Qb (veh)	0	0						
Urban street class, SC	2	2						
Free-flow speed, FSS (mi/h)	40	40						
Running Time, TR (s)	10.4	10.4						
Other delay, (s)	0.0	0.0						
Delay Computation								
Uniform delay, d1 (s)	44.6	42.1	5.4	5.4	5.4	5.4	5.4	5.4
Incremental delay adj, k	0.42	0.46	0.50	0.50	0.50	0.50	0.50	0.50
Upstream filtering adj factor, I	1.000	0.306						
Incremental delay, d2 (s)	16.9	9.1	1.0					
Initial queue delay, d3 (s)	0	0						
Progression adj factor, PF	0.861	0.808	0.256	0.256	0.256	0.256	0.256	0.256
Control delay, d (s)	55.3	43.1						
Segment LOS Determination								
Travel time, ST (s)	65.6	53.4						
Travel speed, SA (mi/h)	4.9	6.1						
Segment LOS	F	F						
Urban Street LOS Determination								
Total travel time (s)	119.0							
Total length (mi)	0.18							
Total travel speed, SA (mi/h)	5.4							
Total urban street LOS	F							

URBAN STREET WORKSHEET #1								
General Information				Site Information				
Analyst	USAI			Urban Street	VISTA WAY/COLLEGE TO 78WB RAMP			
Agency/Co.	USAI			Direction of Travel	West-bound			
Date Performed	8/27/2012			Jurisdiction				
Time Period	AM PEAK HOUR			Analysis Year	2030 ALT-2/NO PROJECT			
Project Description:								
Input Parameters								
Analysis Period(h) T = 0.25	Segments							
	1	2	3	4	5	6	7	8
Cycle length, C (s)	100.0	100.0						
Eff. green to cycle ratio, g/C	0.260	0.206						
v/c ratio for lane group, X	0.440	0.532						
Cap of lane group, c (veh/h)	898	647						
Pct Veh on Grn., PVG								
Arrival type, AT	5	5						
Unit Extension, UE (sec)	3.0	3.0						
Length of segment, L (mi)	0.09	0.09						
Initial Queue, Qb (veh)	0	0						
Urban street class, SC	2	2						
Free-flow speed, FSS (mi/h)	40	40						
Running Time, TR (s)	10.4	10.4						
Other delay, (s)	0.0	0.0						
Delay Computation								
Uniform delay, d1 (s)	30.9	35.4	5.4	5.4	5.4	5.4	5.4	5.4
Incremental delay adj, k	0.11	0.13	0.50	0.50	0.50	0.50	0.50	0.50
Upstream filtering adj factor, I	1.000	0.899						
Incremental delay, d2 (s)	0.3	0.8	3.7					
Initial queue delay, d3 (s)	0	0						
Progression adj factor, PF	0.766	0.827	0.256	0.256	0.256	0.256	0.256	0.256
Control delay, d (s)	24.0	30.0						
Segment LOS Determination								
Travel time, ST (s)	34.4	40.4						
Travel speed, SA (mi/h)	9.4	8.0						
Segment LOS	F	F						
Urban Street LOS Determination								
Total travel time (s)	74.8							
Total length (mi)	0.18							
Total travel speed, SA (mi/h)	8.7							
Total urban street LOS	F							

URBAN STREET WORKSHEET #1								
General Information				Site Information				
Analyst USAI				Urban Street VISTA WAY/COLLEGE TO 78WB				
Agency/Co. USAI				RAMP				
Date Performed 8/27/2012				Direction of Travel West-bound				
Time Period AM PEAK HOUR				Jurisdiction				
				Analysis Year 2030 ALT-2/WITH PROJECT				
Project Description:								
Input Parameters								
Analysis Period(h) T = 0.25	Segments							
	1	2	3	4	5	6	7	8
Cycle length, C (s)	100.0	100.0						
Eff. green to cycle ratio, g/C	0.260	0.206						
v/c ratio for lane group, X	0.444	0.532						
Cap of lane group, c (veh/h)	899	647						
Pct Veh on Grn., PVG								
Arrival type, AT	5	5						
Unit Extension, UE (sec)	3.0	3.0						
Length of segment, L (mi)	0.09	0.09						
Initial Queue, Qb (veh)	0	0						
Urban street class, SC	2	2						
Free-flow speed, FSS (mi/h)	40	40						
Running Time, TR (s)	10.4	10.4						
Other delay, (s)	0.0	0.0						
Delay Computation								
Uniform delay, d1 (s)	31.0	35.4	5.4	5.4	5.4	5.4	5.4	5.4
Incremental delay adj, k	0.11	0.13	0.50	0.50	0.50	0.50	0.50	0.50
Upstream filtering adj factor, I	1.000	0.897						
Incremental delay, d2 (s)	0.4	0.8	3.7					
Initial queue delay, d3 (s)	0	0						
Progression adj factor, PF	0.766	0.827	0.256	0.256	0.256	0.256	0.256	0.256
Control delay, d (s)	24.0	30.0						
Segment LOS Determination								
Travel time, ST (s)	34.4	40.4						
Travel speed, SA (mi/h)	9.4	8.0						
Segment LOS	F	F						
Urban Street LOS Determination								
Total travel time (s)	74.8							
Total length (mi)	0.18							
Total travel speed, SA (mi/h)	8.7							
Total urban street LOS	F							

URBAN STREET WORKSHEET #1								
General Information				Site Information				
Analyst USAI				Urban Street VISTA WAY/COLLEGE TO 78WB				
Agency/Co. USAI				RAMP				
Date Performed 8/27/2012				Direction of Travel West-bound				
Time Period PM PEAK HOUR				Jurisdiction				
				Analysis Year 2030 ALT-2/NO PROJECT				
Project Description:								
Input Parameters								
Analysis Period(h) T = 0.25	Segments							
	1	2	3	4	5	6	7	8
Cycle length, C (s)	110.0	110.0						
Eff. green to cycle ratio, g/C	0.300	0.224						
v/c ratio for lane group, X	0.474	0.947						
Cap of lane group, c (veh/h)	1043	717						
Pct Veh on Grn., PVG								
Arrival type, AT	5	5						
Unit Extension, UE (sec)	3.0	3.0						
Length of segment, L (mi)	0.09	0.09						
Initial Queue, Qb (veh)	0	0						
Urban street class, SC	2	2						
Free-flow speed, FSS (mi/h)	40	40						
Running Time, TR (s)	10.4	10.4						
Other delay, (s)	0.0	0.0						
Delay Computation								
Uniform delay, d1 (s)	31.4	42.1	5.4	5.4	5.4	5.4	5.4	5.4
Incremental delay adj, k	0.11	0.46	0.50	0.50	0.50	0.50	0.50	0.50
Upstream filtering adj factor, I	1.000	0.877						
Incremental delay, d2 (s)	0.3	19.7	1.0					
Initial queue delay, d3 (s)	0	0						
Progression adj factor, PF	0.714	0.808	0.256	0.256	0.256	0.256	0.256	0.256
Control delay, d (s)	22.8	53.7						
Segment LOS Determination								
Travel time, ST (s)	33.1	64.1						
Travel speed, SA (mi/h)	9.8	5.1						
Segment LOS	F	F						
Urban Street LOS Determination								
Total travel time (s)	97.2							
Total length (mi)	0.18							
Total travel speed, SA (mi/h)	6.7							
Total urban street LOS	F							

URBAN STREET WORKSHEET #1								
General Information				Site Information				
Analyst	USAI			Urban Street	VISTA WAY/COLLEGE TO 78WB RAMP			
Agency/Co.	USAI			Direction of Travel	West-bound			
Date Performed	8/27/2012			Jurisdiction				
Time Period	PM PEAK HOUR			Analysis Year	2030 ALT-2/WITH PROJECT			
Project Description:								
Input Parameters								
Analysis Period(h) T = 0.25	Segments							
	1	2	3	4	5	6	7	8
Cycle length, C (s)	110.0	110.0						
Eff. green to cycle ratio, g/C	0.300	0.224						
v/c ratio for lane group, X	0.487	0.947						
Cap of lane group, c (veh/h)	1043	717						
Pct Veh on Grn., PVG								
Arrival type, AT	5	5						
Unit Extension, UE (sec)	3.0	3.0						
Length of segment, L (mi)	0.09	0.09						
Initial Queue, Qb (veh)	0	0						
Urban street class, SC	2	2						
Free-flow speed, FSS (mi/h)	40	40						
Running Time, TR (s)	10.4	10.4						
Other delay, (s)	0.0	0.0						
Delay Computation								
Uniform delay, d1 (s)	31.6	42.1	5.4	5.4	5.4	5.4	5.4	5.4
Incremental delay adj, k	0.11	0.46	0.50	0.50	0.50	0.50	0.50	0.50
Upstream filtering adj factor, I	1.000	0.868						
Incremental delay, d2 (s)	0.4	19.6	1.0					
Initial queue delay, d3 (s)	0	0						
Progression adj factor, PF	0.714	0.808	0.256	0.256	0.256	0.256	0.256	0.256
Control delay, d (s)	22.9	53.6						
Segment LOS Determination								
Travel time, ST (s)	33.2	63.9						
Travel speed, SA (mi/h)	9.7	5.1						
Segment LOS	F	F						
Urban Street LOS Determination								
Total travel time (s)	97.2							
Total length (mi)	0.18							
Total travel speed, SA (mi/h)	6.7							
Total urban street LOS	F							

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